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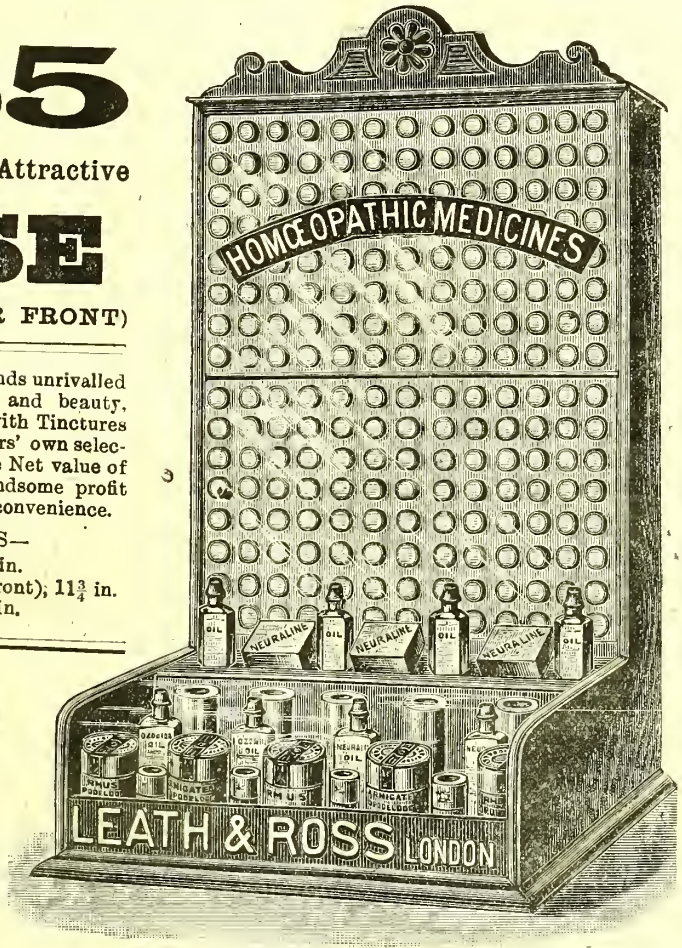

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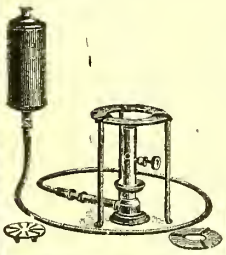

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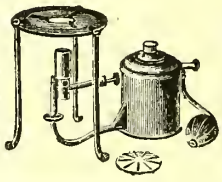

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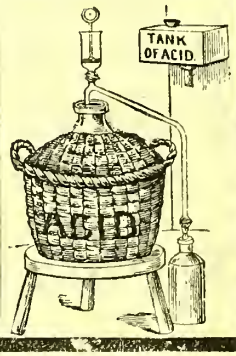

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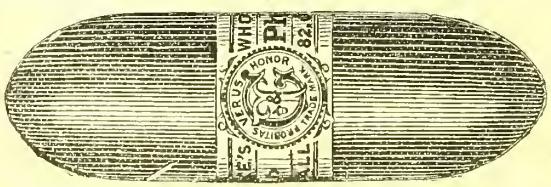

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7 to 12 ALDERSGATE STREET, LONDON.

THE "BETROTHAL" BOUQUET.

GROSSMITH'S NEW PERFUME.

A chef d'œuvre of the perfumer's art.

UNDER ROYAL PATRONAGE.

Dedicated by gracious permission to PRINCESS MAY (H.R.H. The Duchess of York).

N.B.—This entrancing Perfume is quite new, and possesses the rare quality of preserving its very *distinctive* and floral character throughout.

In attractive single cases, 21/-, 40/-, and 80/- per doz. Sold by all leading Chemists and Perfumers.

J. GROSSMITH, SON & CO., Perfumers, LONDON.

GENUINE EAU DE COLOGNE

Johann Maria Farina
Gegenüber dem Laurenz Platz } 2-oz., 7/6, 4-oz., 14/; WICKER BOTTLES. ½-pints, 21/-, pints, 42/-; quarts, 84/- per doz.

The second largest sale amongst Chemists in the U.K.

Sole Agents—OSCAR MOENICH & CO., 8 COLEMAN STREET, LONDON E.C.

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Established 60 years. MANUFACTURER OF

REFINED BORAX (in Crystals and Fine Powder), CALCINED BORAX & GLASS of BORAX (for Assaying and other purposes),
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And all kinds of CHEMICAL PREPARATIONS for POTTERS', GLASSMAKERS', and ENAMELLERS' USES.
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SAMPLES AND LOWEST QUOTATIONS ON APPLICATION. Telegrams—"Borax Stoke-on-Trent." Telephone 223.

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(REGISTERED TRADE MARK)

THE CURE FOR

BALDNESS.

Retail Price 5/- per Bottle.

Messrs. F. NEWBERY & SONS, 1 King Edward Street, London, E.C., will be happy to quote *most advantageous* terms for the above, and Dr. Horn's other renowned Specialities for the Hair.

NAMES OF AGENTS WELL ADVERTISED. HANDSOME SHOW CARDS, &c.

The above goods enjoy an enormous and ever-increasing sale in all parts of the World. Sole Proprietor—

O. E. HORN, D.Sc., Newport, I.O.W.

50 YEARS SUCCESS

HOPGOOD'S NUTRITIVE & SEDATIVE HAIR CREAM.

The *only* preparation for the Hair recommended by leading Physicians for the removal of Scurf, allaying irritation, preventing greyness and baldness, and producing a LUXURIANT HEAD OF HAIR.

JOHN A. WALCOTT, M.D., M.R.C.S., says:—"I feel much pleasure in being able to recommend (with confidence) your NUTRITIVE CREAM in all cases of irritation of the scalp, accumulation of dandriff and loss of hair, in each of which I have freely used it with UNFAILING SUCCESS."

In Bottles to Retail at 1/6, 2/6, and 3/6. Revised Wholesale Prices, 12/6, 20/-, 30/- per doz. Supplied by all Wholesale Sundry Houses,

OR FROM THE DEPOT—

OSBORNE, GARRETT & CO., 51 Frith St., Soho., LONDON, W.

H. P. TRUEFITT'S SPECIALITIES FOR THE HAIR.

Floral Extract, 3/6, 5/-, 10/6, 21/-
Egg Julep, 2/-, 4/-
CONCENTRATED Egg Julep, 2/6, 5/-, 10/6.
Golden Fluid, 10/6, 21/-
EUXURON, 1/6.
&c.

EUCHRISMA. Combines in one clear Fluid every valuable Component both of a Hair Grease and Wash, 3/6, 6/-, 10/6, 21/-.

EAU RACINE. For renewing the original colour of Grey Hair; superior to all other Restorers, being perfectly simple in its Components. Price 6/-.

Stimulating Lotion, 5/-, 10/6.
Astringent and Tonic Lotion, 5/-, 10/6.
Quinine and Arnica Hair Wash, 3/6, 5/-, 10/6, 21/-
Arnica Wash, 3/6, 5/-, 10/6.
&c.

An elegant Preparation for the Hair and Beard. Price 2/6, 3/6, 5/-, 10/6, 21/-.

BRILLANTINE.

H. P. TRUEFITT'S TONIC TOOTH BRUSH

(BY ROYAL LETTERS PATENT.)

PRICE ONE SHILLING.

20 & 21 Burlington Arcade; 13 & 14 Old Bond St., London.

WORLD-WIDE POPULARITY. THE DELICIOUS PERFUME

CRAB-APPLE BLOSSOMS.

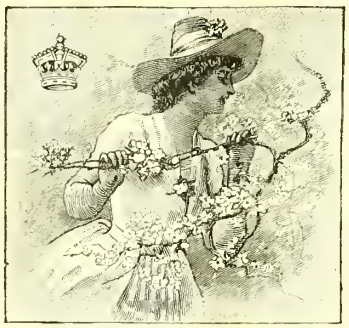
No. A1.
20/-, 36/- & 48/- doz.

Crab-Apple Blossom Toilet Water, 24/- and 36/- doz.

Crab-Apple Blossom Poudre de Riz, 21/- doz.

Crab-Apple Blossom Sachets, 12/6 doz.

Crab-Apple Blossom Soap, 16/- doz.



These renowned Smelling Salts exhale a most delicious odour; they are a refreshment to the invalid, a delightful deodoriser and luxury for all. By leaving the stopper out for a few moments a delightful perfume escapes which freshens and purifies the air most enjoyably.—*Le Follet.*

No. 1,248.
16/- & 32/- doz.

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CROWN LAVENDER SALTS.

ANNUAL SALE OVER 500,000 BOTTLES.

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MATSUKITA DU JAPON,

A NEW AND DELIGHTFUL PERFUME.

Matsukita Perfume	21/- and 36/- doz.
Matsukita Toilet Water	24/- and 36/- ,,
Matsukita Poudre de Riz	21/- ,,
Matsukita Toilet Soaps	16/- ,,
Matsukita Sachets	12/- ,,

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Essential Oils, Perfumed Oils, Pomatums, Floral Waters, Olive Oils.

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60 MARK LANE, E.C.

NAME STAMPED GRATIS

BEST & SAFEST DENTIFRICE

SOLD BY ALL CHEMISTS AND PERFUMERS, IN ELEGANT CRYSTAL TOILET CASKET PRICE 2/6.

ALSO IN PATENT METALLIC BOX PRICE 1/-

On Orders of **3 doz.** Through any Wholesale House, or direct to

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PORTABLE DENTIFRICE.

120 Tablets, 1/- per box.

Fragrant Bouquet Tooth Soap

6*d.*, 1/-, and 2/- per box.

RUBILINE

AN EXQUISITE LIQUID DENTIFRICE.

1/6 and 3/- per bottle.

APONIA TOOTHACHE PLASTERS

1/1½ per box.

EVERY DENTAL REQUISITE.

STOCK KEPT IN LONDON.

SOZIO & ANDRIOLI

ESTABLISHED A.D. 1757.] **GRASSE** (Alpes Maritimes), FRANCE.

Neroly, Lavender, Geranium, Orris, Patchouly, Thyme, Rosemary, Spike, Santal, &c.

CONCENTRATED PERFUMES. | **CONCRETE ESSENTIAL OILS.**

FLOWER POMADES at the highest possible Saturation. ROSE & ORANGE FLOWER WATER, Sweet Almond Oil.

London Agent—MR. FREDK. BOEHM, 4 CULLUM ST., E.C.

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IMPORTER OF

Musk Civet Ambergris Attar-of-Rose

ESSENTIAL OILS

Wholesale and Export only

APPLICATION ON QUOTATIONS AND PRICE LIST

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PURITY GUARANTEED.

Oleum Absinthii, Amygdalæ Dulcis, ditto Essent., Anisi (H. & W.), Bergamotæ, Caryophylli, Cognac, Coriandri, Geranii (Vimard & Co.), Iridis (Vimard & Co.), Juniperi, Lavendulæ, Limonis, Menth. Pip. (H. G. Hotchkiss), Pini Pumilionis, Sylvestris, Rosmarini, &c., &c., &c.

OTTO OF ROSE (Pure Virgin).

SPECIALITIES:—

CARAMELINE (substitute for Burnt Sugar). 20 times stronger than Caramel.

SOLUBLE ESSENCE OF ORRIS (Maubert Fils & Vimard).

CONCENTRATED PERFUMES, POMADES, FLOWER-WATERS.

Carbolic Acid, Liquid, 25 per cent.
Carbolic Acid, „ 50 „
Carbolic Acid, Liquid, 95 per cent.
Carbolic, Crystal, 35° to 70°.

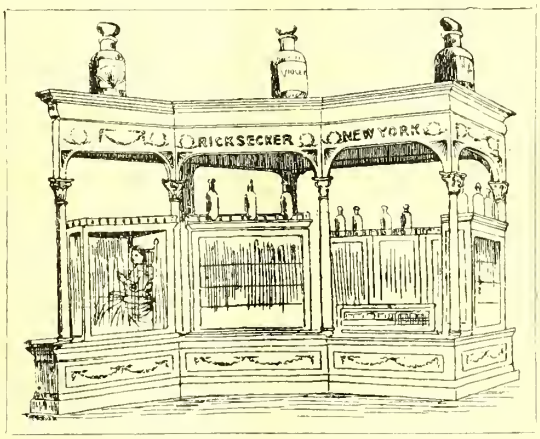
RICKSECKER'S PERFUMES

At the WORLD'S FAIR.

An Extract from the Special Report of "THE CHEMIST AND DRUGGIST," July 29, 1893.

Perfumes form one of the most attractive features in the ground-floor section. A prominent and most artistic exhibit is that of Theo. Ricksecker, of Maiden Lane, New York, which occupies a corner of the aisle as we approach from the north entrance. Here there is a series of eight cases decorated in green enamel and gold, forming a kind of wedge.

The apical case contains a figure of the woman most revered by all Americans—Martha Washington, the mother of the Republic. This figure is modelled in wax, and is, we believe, a true likeness. Martha Washington was a charming and lovely woman, and Mr. Ricksecker has not failed to do her beauty justice, for the dressing of the figure is as tasteful and elegant a costume as would serve for a royal wedding. This unique feature naturally attracts attention to the exhibit, and once the visitor begins to inspect it he finds many things to interest him.



There is a charm about the Ricksecker perfumes which is unusual: they are elegantly put up, both the shapes of bottles and the style of labels being quite *sui generis*. This is particularly noticeable in such perfumes as lavender-Cologne, sweet clover, and many others which might be named. The perfumes are displayed in magnificent vases and flasks as well as in the usual bottles for retailing, and they are set off by a selection of solid perfumes (sachets, &c.), which are also of elegant get-up.

In connection with these perfumes we may mention that the syndicate having the exclusive sale of perfumery at the Fair selected them as the only kind to be sold there, and the company which purchased the concession for selling perfumery through machines use them only in the 200 machines on the World's Fair grounds.

Besides perfumes the exhibit contains a good selection of toilet-preparations, such as tooth-powders, face-powders, reviving-salts, and soaps. There is a 165-lb. block of Ricksecker skin-soap on show which looks just like marble, and which, we noticed, was always dry whatever the state of the weather might be. This is a distinct innovation in toilet-soaps, for it eschews all the characteristics which are generally taken to imply attractiveness. For instance, it is not brightly coloured, nor is it scented—the oleaceous base is purely vegetable and in saponification the amount of alkali is rigidly hit off, and by subsequent treatment the soap is brought to a condition of strict neutrality. In appearance the soap looks well, for it is milled five times, so that it comes out almost cream in colour, and the odour is not unpleasant. It gives a smooth but not abundant lather which can lie upon the skin for a long time without producing irritation, and its detergent qualities are excellent.

It will be noticed from the sketch that Mr. Ricksecker's exhibit is surmounted by three gigantic bottles of perfume, and we ought to add that the cases are so arranged as to form an office within which the attendant can receive visitors, who also have the privilege of writing letters in the office.

MANUFACTURED SOLELY BY

THEO. RICKSECKER, MAIDEN LANE, NEW YORK CITY.

English Agents—LYNCH & CO., LIM., Aldersgate Street, LONDON, E.C.

By Royal Letters Patent.

THE TEETHING PADS TO SELL.

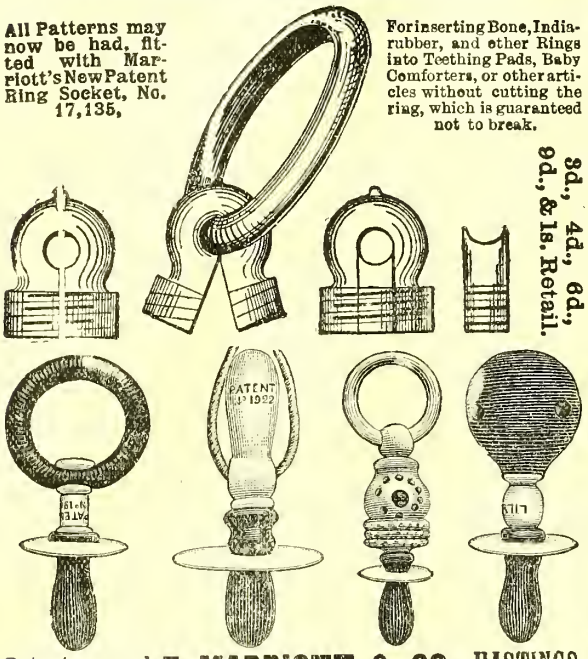
THE "LILY" BABY COMFORTER.

The teats are seamless, and always retain their proper shape.
THE CHILD CANNOT POSSIBLY IMBIBE AIR.

All Patterns may now be had, fitted with Marriott's New Patent Ring Socket, No. 17,135.

For inserting Bone, India-rubber, and other Rings into Teething Pads, Baby Comforters, or other articles without cutting the ring, which is guaranteed not to break.

3d., 4d., 6d., 9d., & 1s. Retail.



Patentees and Manufacturers, E. MARRIOTT & CO., HASTINGS.

FOR OTHER PATTERNS SEE 1893 DIARY, PAGE 295.

MACKEY, MACKEY & CO.'S

EUCALYPTOL DISINFECTANTS

MEDALS—*Cape Town*, 1877; *Brighton*, 1881; *Cork*, 1883; *Dublin*, 1884; *International Inventions Exhibition*, 1885.
GOLD MEDAL—*International Health Exhibition*, 1884.

EUCALYPTOL ESSENCE, for internal use in Bronchitis, Influenza, &c. In bottles 2/- each. Spray 2/- extra.

EUCALYPTOL DISINFECTING FLUID, for Drains, Sick-rooms, &c. In 1/- and 2/- bottles. In 1-gallon cans, cans included, at 5/- per gallon.

EUCALYPTOL DISINFECTING POWDER, for Sprinkling about Sick-rooms, &c. In 1/- tins. In ¼-cwt., ½-cwt., and 1-cwt. packages, packages extra, at 10/6 per cwt.

EUCALYPTOL CLEANSING FLUID, for Laundry Use. In 1/- and 2/- bottles. In 1-gallon cans, cans included, at 5/- per gallon.

EUCALYPTOL CLEANSING POWDER, for Cleaning Stairs, Floors, Benches, &c., no soap or soda being required. In 1/- tins. In ¼-cwt., ½-cwt., and 1-cwt. packages, at 18/- per cwt. Packages extra.

EUCALYPTOL & PINE WOOD OZONISER. In 1/- tins.

KRESYLINE DISINFECTING FLUID (Soluble Creasote). In 6*d.*, 1/-, and 2/- bottles. In 1-gal. cans, cans included, at 4/- per gal.

CARBOLIC ACID (Black), for Sewage Disinfection.

CARBOLIC ACID No. 5 (Light Brown). In 1-gallon cans, cans included. 4/- per gallon.

CARBOLIC POWDER 15%. In 1/- tins. In ¼-cwt., ½-cwt., and 1-cwt. packages, packages extra, at 6/6 per cwt.

SPECIAL QUOTATIONS FOR QUANTITY.

MACKEY, MACKEY & CO.
1 & 2 BOUVERIE STREET, FLEET ST., E.C.

COOK'S PURE TOILET SOAPS.

SPECIALITIES:—COOK'S SAVON DE LUXE. The most luxurious soap made.

COOK'S "RIVIERA" (SUPER-FATTED). Specially prepared for delicate and sensitive skins.

SPECIALITIES MADE FOR THE TRADE.

COOK'S GOLD MEDAL ANTISEPTIC SOAP. (Thomson's Patent.)
For curing and relieving Eczema, Ringworm, and all skin affections.

SIX PRIZE MEDALS AT GREAT EXHIBITIONS FOR EXCELLENCE AND PURITY.

Can be obtained through
Messrs. S. MAW, SON & THOMPSON, LONDON, or from E. COOK & CO., LONDON.

EWEN'S

Pure Lard	...	/11 lb.
Benzd. Lard	...	1/ ,,
Beef Marrow	...	1/4 ,,
Beef Suet	...	1/ ,,
Mutton Suet	...	/9 ,,
Neatsfoot Oil	...	1/6 ,,
Trotter Oil	...	1/6 ,,
Zinc Ointment		1/6 ,,

EWEN'S

Violet Powder		/10 lb.
Cosmetiques	...	3/ doz.
Tooth Powder		3/6 ,,
Camphor Rolls		3/3 ,,
Pomades	...	3/6 ,,
Brilliantine	...	7/ ,,
Soft Soap, B.P.		/8 lb.
Grain Musk	...	110/ oz.

TOILET AND MEDICATED SOAPS OF ALL KINDS.

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AS USED AT ALL THE GOVERNMENT MUSEUMS

For almost any Substance, from Glass and China to Leather, Wood, or Iron. Sold in Bottles at 6*d.* and 1*s.* (equal to three of the smaller).

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TOILET & NURSERY POWDER

Impalpable and Delicately Perfumed.

Sold in Boxes at 6*d.* and 1*s.* Wholesale at the Patent Medicine Houses and Druggists' Sundriesmen, or from

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CHEMISTS,
BIRKENHEAD, ENGLAND.

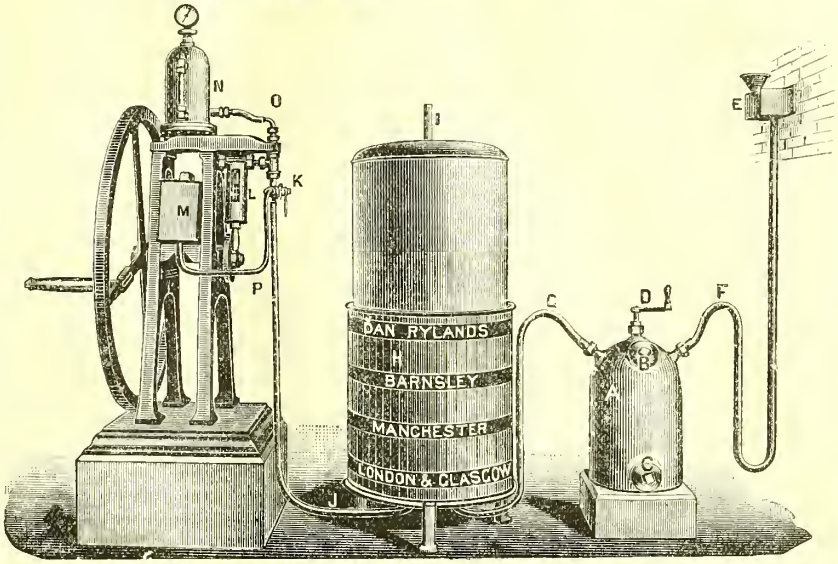
CHEMISTS' SODA WATER PLANT.

FOR HAND POWER ONLY.

The Chemists' Plant is a combination of the PATENT GLASS BARREL PUMP and AUTOMATIC SATURATING CYLINDER with the ordinary Gas Apparatus, and is designed to meet the requirements of customers whose demands are small.

The GASHOLDER is made entirely of metal (which is much better suited than wood for warm climates), with a rod running through the centre to guide the bell. It rests on an iron stand which lifts it out of the dirt and wet on the floor of the factory. The GENERATOR is made of the best rolled lead, with all seams burnt, gun-metal fittings, and large inlet and outlet for whiting. The BLOWBACK PREVENTION ACID BOX is made on the very best principles, with all seams chemically burnt, same as the Generator.

All pipes are fitted and attached exactly as shown in the cut before leaving the works, and on being attached in their proper places the plant is ready for work. The whole plant is got up in a substantial manner with good weight of material and first-class workmanship, and we can with confidence defy competition at the price.



Price of Chemists' Plant Complete as Illustrated £32. Code Word, "Rampant." Packed for Export, 5% extra.

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RAPID PARAGON.

(As Illustrated.)

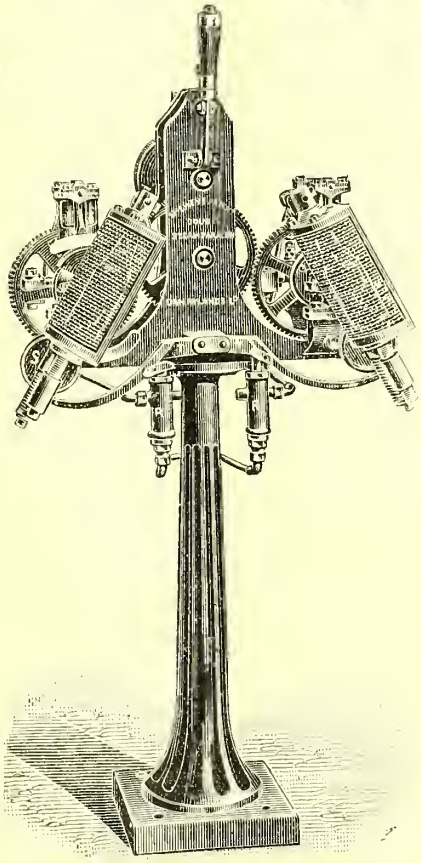
THE BEST KNOWN FILLER EVER MADE.

OVER 4,000 SOLD.

The simplest, quickest filling, strongest and cheapest in the trade.
No aërated water valve.
Most reliable Syrup Pump.
No ground valves.
Only one leather cup in the pump, and can be expanded without being taken out.
Easiest to keep in order.

PRICES.

	£	s.	d.
With Syrup Pump ...	9	9	0
Without „ ...	6	6	0
Packing for Export ...	0	9	6



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FOR HAND OR POWER.

AUTOMATIC IN ACTION.
NO WASTE.

Syrups and fills 100 to 120 dozen per hour.

Two kinds of water filled at one time.

Large and split bottles filled at one time.

Neither water or syrup will flow unless the bottle is in.

PRICES.

	£	s.	d.
With Syrup Pump...	23	10	0
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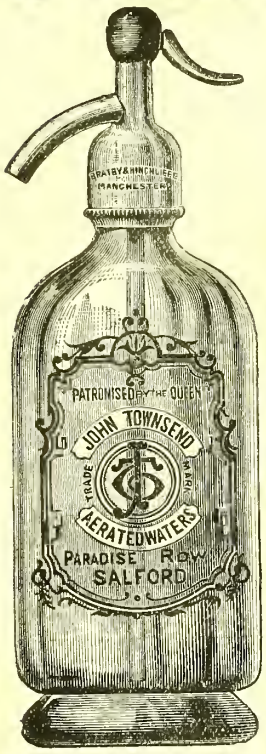
SYPHON FILLERS, CORKING RACKS, SYRUPING MACHINES, ETC.

DAN RYLANDS, LIMITED, BARNSLEY, ENGLAND.

SYPHONS & SELTZOGENES



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BRATBY & HINCHLIFFE LTD
ANCOATS & 146 MINORIES
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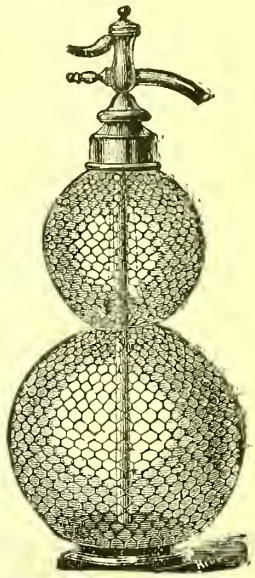
Messrs. NOYES BROS., 43 Queen Street, Melbourne, Victoria, Agents for Victoria, South and West Australia, and Tasmania.

All our Seltzogenes are manufactured on the well-known "Fevre" System and each one is thoroughly tested before leaving the works.



PRICES.

SYPHONS ... 1/6 1/8 and 1/10 each.

SELTZOGENES.

1	2	3	4	5	8 pint.
6/-	6/8	7/6	8/6	10/5	16/- each.

Including two funnels and stopper for charging.
The tops of these Seltzogenes are made of pure block tin, guaranteed.

PURE ORANGE WINE

(VINUM AURANTII, B.P.), prepared in strict accordance with the Formula of the British Pharmacopœia.

MOST SUITABLE BASIS FOR QUININE AND OTHER MEDICATED WINES.

A. MILLAR & CO., DUBLIN; and 47 MARK LANE, LONDON, E.C.

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Of Finest Flavour and Quality, and specially suitable for the Preparation of Orange Quinine Wine.

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LIME JUICE CORDIAL. LIME JUICE CORDIALETTE. LEMON SQUASH.

All these articles are popular summer beverages, and are put up in suitable bottles attractively finished off.

	Cordial.	Cordialette.	Lemon Squash.
Reputed Pints, per doz.	4/6	4/-	4/6
" Quarts "	7/3	6/3	7/3
Per Gallon	2/-	1/8	2/-

PURE WEST INDIA LIME JUICE (Filtered Bright).

GRANULAR EFFERVESCENT CITRATE OF MAGNESIA. Per cwt., 70/- and 77/-.

EFFERVESCENT SUMMER SALINE. Per cwt., 85/-. 8-oz. bottles, 6/9; 16-oz. bottles, 12/- per dozen.

PERSIAN SHERBET (Lemon Kali). Per cwt., 40/- and 44/-.

Prepared under the superintendence of a duly qualified Analytical Chemist.

CHAS. SOUTHWELL & CO., Dockhead, LONDON, S.E.

"DORINA" NURSERY BISCUITS

Every Chemist is invited to send for **FREE FULL-SIZE SAMPLE TIN.**

"They possess distinct nutritive value."—*The Lancet.*

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SUPPLIED TO CHEMISTS

1/2 Tins, 10/6 per dozen.

Wholesale of all Wholesale Houses.

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has secured the celebrated

RAVEN SPRING

at Mitcham, the water of which has been analysed and pronounced by experts to be unsurpassable for the Manufacture of Table Waters in Bottles and Syphons.

AN EXCELLENT FACTORY, fitted with the best up-to-date machinery, is now completed, and any Chemist who may wish to view the works will be welcome at any time. This fresh source of supply should prove a boon to all chemists on the South side of London and adjoining districts.

OVER 2,500 CHEMISTS have already joined hands in this business; this number is steadily increasing; and all other chemists are invited to co-operate with them.

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Embracing the Therapeutic Properties of the **COCA** *Plant, blended with the best Madeira.*

The VINACOCA is carefully prepared from the best Coca Leaf only. (No Addition of Cocaine.)

ONLY ONE WINE (CHOICE MADEIRA) ONE QUALITY (A 1) ONE PRICE } **THE BEST & CHEAPEST ON THE MARKET.**

The best Restorative is *(Rolland's Coca Wine).* **VINACOCA**

The best Nerve Tonic is *(Rolland's Coca Wine).* **VINACOCA**

The best Renewer of Health is *(Rolland's Coca Wine).* **VINACOCA**

Sold in Bottles at 3s. 6d. each, or 40s. per dozen, Retail.
Usual Trade Discount. Pamphlets for distribution, carriage paid.

COCA is prepared in various forms: COCA WINE, COCA LIQUEUR, COCA LOZENGES, COCA TABLETS, COCA ELIXIR, COCA TEA, COCA CHOCOLATE, COCA TOBACCO, &c.

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MAKERS OF ALL DESCRIPTIONS OF MEDICATED LOZENGES.

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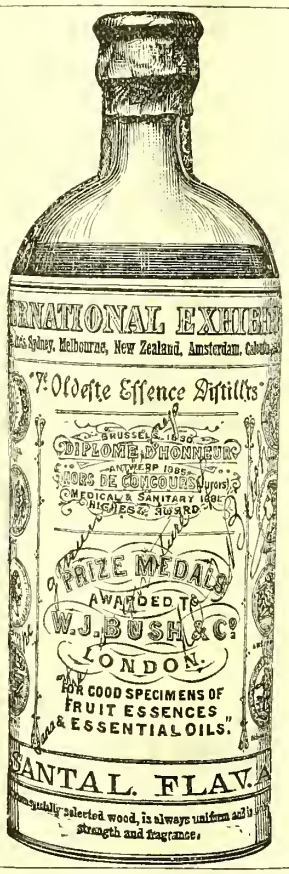

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Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).
December 15, 1888.

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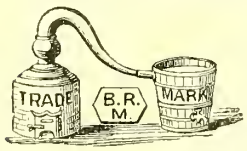

Aqua Anethi, Concent.,	4/ lb.	Aqua Cinnam. Ver., Concent.,	6/ lb.	Aqua Fœniculi, Concent.,	4/ lb.	Aqua Pimentæ, Concent.,	4/ lb.
" Anisi "	4/ "	" Cassiæ "	4/ "	" Menth. Pip. "	4/ "	" Rosæ "	8/6 "
" Camphoræ "	4/ "	" Flor. Aurant. "	8/6 "	" " Ang. "	6/ "	" Rosæ Virgin "	10/6 "
" Carui "	4/ "	" Flor. Sambuci "	8/6 "	" " Virid. "	4/ "		

The above are put up in Bottles of ½ lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.

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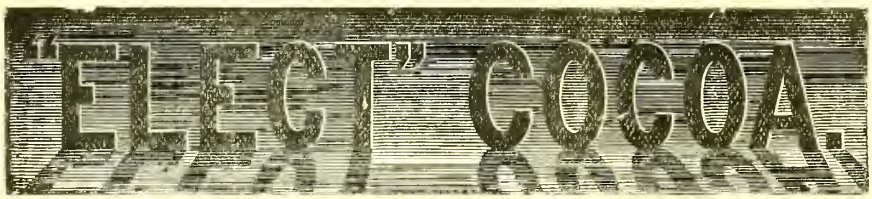

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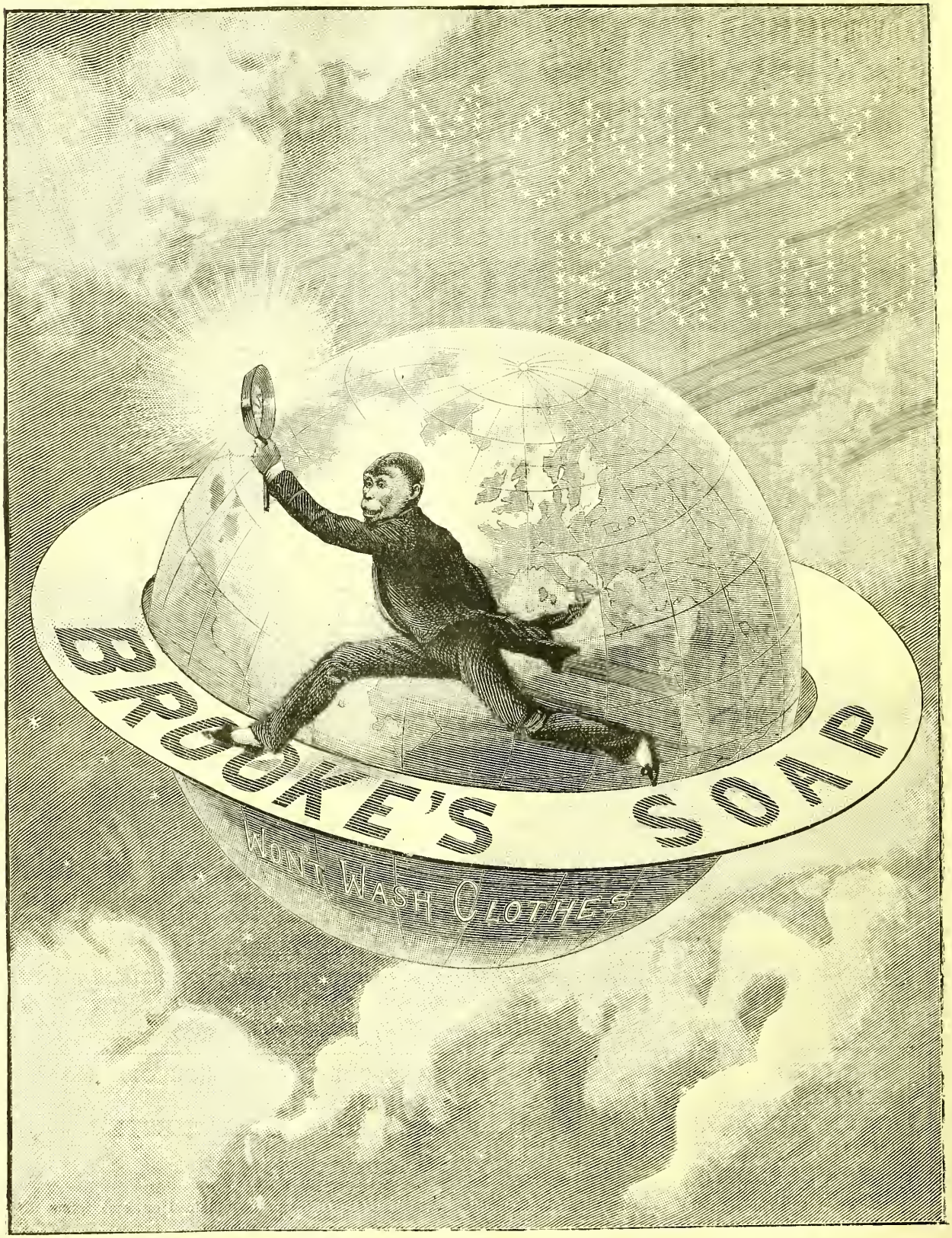

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INDEX TO ADVERTISEMENTS APPEARING IN THIS ISSUE.

NOTE.—The Folios shown in this Index are those at the FOOT of the Page, and not at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

	Foot of Page
Allen & Hanburys	*Cover*
Anderson & Co.	68
Anderston Apothecaries' Co.	53
Anglo-American Drug Co.	51
Apollinaris Co. (Lim.)	*Cover*
Atkinson & Barker	49
Bailey, W. H., & Son	31
Barclay & Sons (Lim.)	54
Barratt, A. A.	66
Barron, Harveys & Co.	52
Beecham, T.	50
Benger's Food	34
Berdoe & Co.	*Coloured Supplement*
Berend, O., & Co.	4
Betts & Co.	62
Bewley & Draper (Lim.)	34
Bieber, J. D.	45
Binghamton Oil Co.	4
Bird & Storey	56
Blair's Pills	66
Blondeau & Co.	9
Boehm, F.	53
Boissy	*Text* 634
Boord & Son	58
Botwright & Grey	4
Bovril (Lim.)	20
Bradley & Bourdas	10
Brand & Co.	22
Bratby & Hinchliffe (Lim.)	18
Brett, F. J.	*Coloured Supplement*
Bromley, C.	67
Brooks, T.	59
Browning, A. J.	67
Brunnerstaedt & Lneders	13
Brunner, Mond & Co. (Lim.)	38
Bryce & Rumpff	53
Burgess, E., junr.	49
Burgoyne, Burbidges & Co.	41
Burrough, James	63
Burroughs, Wellcome & Co.	32, 33, 34
Burton, Wm., & Sons	58
Bush, W. J., & Co.	21
Cadbury Bros.	*Cover*
Calvert, F. C., & Co.	56
Central School of Pharmacy	8
Chemists' Aërated and Mineral Water Association (Lim.)	19
Chesebrough, The, Co.	34
Christy & Co.	5, 66
Clark, S., & Co.	62
Clay, Dod & Co.	52
Cocking, J. T.	60
Compagnie Française	22
Cook, E., & Co.	16
Cox & Co.	53
Crawshaw & Co.	54
Crocker, G. B., & Co.	*Col. Supp.*
Crown Perfumery Co.	13
Currie, Wm., & Co.	30
Davidson & Gray	66
Davis, J.	6
Davis, J., & Co. (Lim.)	6
Day & Sons	*Text* 634
Demarchi, Parodi & Co.	47
Denoual, J.	53
De St. Dalmas, A., & Co.	64
Dodge & Olcott	36
Dorina Biscuits	18
Duncan, Flockhart & Co.	46
Durrant & Co.	63
Ellis & Son	*Text* 634
Ewen & Sons	16
Exchange Column	10
Fellows' Syrup	32
Fentiman, A. J.	67
Ferris & Co.	54
Fink, F., & Co.	66
Fletcher Bros. & Co.	66
Fletcher, Fletcher & Stevenson	66 *Text* 634
Ford, Shapland & Co.	6
Fordham & Sons (Lim.)	26
Fonlkes, C., & Co.	16
French Hygienic Co.	20
Fuerst Bros.	47
Gardner, W.	61
Glendenning, W.	*Text* 634
Glover, Thos., & Son	60
Goodall, Backhouse & Co.	23
Graf, F.	67
Grossmith, Son & Co.	12
Guest, T., & Co.	20
Harrison, T. H.	59
Harroline Pill Co.	53
Heald, A. J.	66
Heath Bros.	67
Hebden, W. C.	56
Hildebrand, E.	66
Hildesheimer & Co.	7
Hill, A. S., & Sons	48
Hirst, Brooke & Hirst (Lim.)	18
Hopf, R., & Co.	66
Hopgood & Co.	12
Horn, O. E.	12
Hullerson, H.	68
Isaacs & Co.	64
Izal	68
Jamieson, W. & J.	13
Jeyes' Sanitary Co. (Lim.)	57
Johnsen & Jörgeusen	64
Jones & Co.	58
Jones, J.	12
Kay Bros. (Lim.)	6
Keene & Ashwell	70
King, F., & Co. (Lim.)	23
Kemp, W., & Son	4
Lamb'rt, S., & Co.	66
Laughland, Mackay & Baker	55
Leath & Ross	3
Leo & Co.	49
Lewig, M.	67
Listerine	46
Liverpool Patent Lint Co.	60
Liverpool School	8
Lorenz, H.	66
Lorimer & Co.	43
Lloyd, T. Howard, & Co.	37
Lofthouse & Saltmer	44
Mackey, Mackey & Co.	16
Marriott, E., & Co.	16
Martin, Perls & Co.	61
Mason, C. E., & Co.	56
Maw, S., Son & Thompson	11, 63
Mawson Filter Co.	24
Maxime & Co.	61
May & Baker (Lim.)	*Cover*
May, Roberts & Co.	*Cover*
McKenzie, Wm., & Co.	6
McKesson & Robbins	40
Melin, C.	63
Mellin's Food	*Text* 634
Metropolitan College	8
Millar, A., & Co.	18
Moenich, O., & Co.	12
Morris & Callard	48
Müller, F.	66
Mumford, G. S.	*Text* 634
Natali & Co.	10
Ness & Co.	67
Nestlé, H.	22
Newsome, C.	54
Orridge & Co.	*Coloured Supplement*
Pascall, Jas.	23
Pears' Soap	35
Pearse & Meeking	24
Peterson M., & Co.	64
Potter & Sacker	50
Quelch, H. O.	50
Raimes & Co.	44
Randall & Son	68
Richards & Bert	67
Richardson, J., & Co. (Leicester), Lim.	39
Ricksecker, Theo.	15
Robinson, B.	24
Rookledge, F. E.	56
Rowntree & Co.	24
Rylands, Dan (Lim.)	17
Sanitas Company (Lim.)	*Text* 634
Schmidt, Karl	47
Schutze & Co.	60
Seabury & Johnson	69
Sheffield College	8
Silicated Carbon Filter Co.	*Text* 634
Silverlock, H.	7
Singleton & Cole	68
Snowdon, Sons & Co.	58
Solport Bros.	30
Southwell & Co.	18
Sozio & Andrioli	14
Stokes' Check Till Co. (Lim.)	59
Surrey Packing Co.	64
Sutton O., & Co.	13
Symes & Co.	46
Tasmanian Eucalyptus Co.	55
Taylor Bros.	8
Thiellay, E. H.	66
Toogood, W.	31
Treatt, R. C.	14
Truefitt, H. P. (Lim.)	12
Tyrer, Thos., & Co.	48
Vaccine Association	53
Vint, T. D.	67
Walker, Troke & Co.	10
Warner, W. R., & Co.	29
Washington Chemical Co.	44
Watson, Jos., & Son	58
Watson & Wates	67
Werner & Pfleiderer	63
White & Sons	53
White, Fairchild & Co.	66
Willcox W. H., & Co.	61
Wills & Wootton	8
Willows, Francis & Butler	52
Wilson, G. W., & Co. (Lim.)	4
Witrofsky, E.	14
Wright, Layman & Umney	*Text* 634
Wyeth, J., & Bro.	25
Youldon, E.	64
Zimmermann, A. & M.	42

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CARBOLIC ACID
Calvert, F. C., & Co.
Mason, C. E., & Co.

CSCRA SAGRADA
Anderson & Co.
Duncan, Flockhart & Co.
Evans, Sons & Co.
Ferris & Co. | Moss, J., & Co.

CASTOR OIL
Allen & Hanburys
Christy & Co. (Aromaticum)
Fuerst Bros.

CATALOGUES & PRICE LISTS
Burroughs, Wellcome & Co.
Gibson, R., & Sons
Lorimer & Co.
Maw, S., Son & Thompson
May, Roberts & Co.
Newbery, F., & Sons
Sanger & Sons

CERESINE WAX
Roehm, Fredk.

CHALK, PRECIP.
Nicholls, G. W.

CHECK TILLS
National Cash Till Co.
Patent Voucher Check Till Co., Lim.
Stokes, G. R., & Co., Lim.

CHEMICALS
Boehm, Fredk.
Boehringer, C. F., & Sohns
Boulton, J., & Co., Lim.
Brunner, Mond & Co., Lim.
Fletcher, Fletcher & Stevenson
Fuerst Bros.
Goodall, Backhouse & Co.
Hill, A. S., & Son [Clarke
Hodgkinsons, Treacher &
Howards & Sons (Pharm.)
Jones, Jno.
Lofthouse & Saltmer
Lorenz, H.
May & Baker, Lim.
Morris & Callard | Moss & Co.
Smith, T. & H., & Co.
Typke & King | Tyrer, T., & Co
Washington Chemical Co.
White, A., & Sons
Zimmermann, A. & M.

CHEST PROTCTRS
Chemists' Association, Lim.
Hockin, Wilson & Co.
Liverpool Patent Lint Co.
Maw, S., Son & Thompson
Newbery, F., & Sons
Pattison, G.
Schutze & Co. | Solport Bros.
Wood, Vincent

CHLOR. OF LIME
Government Sanitary Co.
National Chemical Co.

CHLOROFORM, &c.
Duncan, Flockhart & Co.
Macfarlan, J. F., & Son.
Smith, T. & H., & Co.
Wright, Layman & Umney
Zimmermann, A. & M.

CHLORODYNE
Blyton, Astley & Co.
Davenport (Browne's)
Towle, A. P., & Son
COCA & CHOCOLTE
Cadbury Bros. | Christy & Co.
Compagnie Française
Rowntree & Co.
COCA WINE
Armbrecht, Nelson & Co.
French Hygienic Soc.
Stephen Smith & Co. (Hall's)
COCAINE-HYDRO.
Howards & Sons
COD-LIVER OIL
Allen & Hanburys
Bleasdale & Co.
Burroughs, Wellcome & Co.
Evans, Sons & Co.
Hill, A. S., & Son
Hockin, Wilson & Co.
Robinson & Co.
Smith, T. & H., & Co.
Woolley, Sons & Co.
COFFEE
Symington, T., & Co. (Coffee Essence)
White, Fairchild & Co.
COLAPSBL TUBES
Betts & Co.
COMP. MEDICINS
Allen & Hanburys
Blyton, Astley & Co.
Burroughs, Wellcome & Co.
Fuerst Bros.
Hooper, B., & Co. | Leo & Co.
Lloyd, T. Howard & Co.
CONCENT. LIQRS.
Fletcher, Fletcher & Stevenson
Lloyd, T. Howard & Co.
CONFECTIONERY
Pascall, J.
Smith Tom
CORN CURES
Pattison, G.
Solport Bros.
COTTON WOOL
Haynes, G., & Co. (Absorbent)
Robinson & Sons (Absorbent)
Sanger, J., & Sons
CRSHD LINSEED
Mumford, S. G.
DENTIFRICES
Bailey's Toilet Co.
Beecham, T.
Bronnley, H., & Co.
Dorothy Dentifrice Co.
Hanson, O.
Jamieson, W. & J.
Jewsbury & Brown
Lakeman, J. J.
Quelch, H. C.
Ricksecker, Theo.
Stevens, P. A.
Sutton, O., & Co.
Thompson & Capper
Warrick Bros. | Wilson, A.
Woods, W. (Areca Nut)
DENTISTRY
Browning A. J.
DISINFECTANTS
Amines Synoicate, Lim.
Barclay & Sons, Lim.
Blyton, Astley & Co.
Brooks, T.
Burroughs, Wellcome & Co.
Calvert, F. C., & Co.
Drysdale, J. W., & Co.
Dussek Bros. & Co.
Fletcher Bros. & Co.
Hebden, W. C.
Government Sanitary Co.
Grindley & Co., Lim. | Izal
Jeyes' Sanitary Compounds Co.
Mackey, Mackey & Co.
Mason, C. E., & Co.
May & Baker, Lim.
National Chemical Co.
Sanitas Co., Lim.
Seabury & Johnson
Tyrer, T., & Co.
DOG MEDICINES
Heald, A. J.
Spratt's Patent, Lim.
DRUGS
Hopf, R.
DRUGGISTS' SUN.
Ayrton & Saunders
Bailey, M., & Co.
Barclay & Sons, Lim.
Chemists' Association, Lim.
Currie, W., & Co.
Evans, Lescher & Webb
Evans, Sons & Co. (Savars)
Fordham, W. B., & Sons, Lim.
Gilbertson, H., & Sons
Heath Bros.
Hockin, Wilson & Co.
Hullerson, H.
Idris & Co. Lim.
Kay Bros., Lim.
Maw, S., Son & Thompson
May, Roberts & Co.
Newbery, F., & Sons
Quelch, H. C.
Sanger & Sons | Schnitze & Co.
Tidman & Son | Toogood, W.
Tunbridge & Wright
Tyer Rubber Co.
Wood, Vincent | Young, J.
DRYSALTERIES
Browning, J. H., & Co.
Burton, W., & Sons
DYES, &c.
Ayrton & Saunders
Burton, W., & Sons
Crawshaw & Co.

EAU DE COLOGNE
Farina, J. M.
Hockin, Wilson & Co. (Farina)
Martin, Maria (Nun)
Moenich, Oscar, & Co.
Mulhens, F.
ELECTRIC APPAR.
Darton, F., & Co.
Gent & Co.
EMBROCATION
Day & Sons
ENEMAS
Barclays, Lim.
Evans, Sons & Co.
Sanger & Son
Wood, Vincent
ENGRAVERS
Corsan, J. R.
ESSENCES
Boehm, Fredk.
Boulton, J., & Co. (Lim.)
Brathy & Hinchliffe, Lim.
Burgoyne, Burbidges & Co.
Bush, W. J., & Co.
Fletcher, Fletcher & Stevenson
Goodall, Backhouse & Co.
Idris & Co., Lim.
May & Baker, Lim.
Meadowcroft & Son
Newhall & Mason
Rylands, Dan, Lim.
Stevenson & Howell
Tyrer, P. (Anchovies)
Tyrer, T., & Co.
Woolley, Sons & Co.
ESSENTIAL OILS
Allen, Stafford, & Sons
Barrett, A. A.
Boehm, Fredk.
Brummerstaedt & Lüders
Bush, W. J., & Co.
Clay, Dod & Co.
Dodge & Olcott
Evans, Sons & Co.
Hodgkinsons, Treacher & Clarke
Lambert, S., & Co.
May & Baker, Lim.
Meadowcroft & Sons
Richards & Bert
Rylands, Dan, Lim.
Sozio & Andrioli
Stevenson & Howell
Symes & Co.
Treatt, R. C.
Warrick Bros.
Witrofsky, E.
Wright, Layman & Umney
ETHER
Duncan, Flockhart & Co.
Howards & Sons
May & Baker, Lim.
Rohhins, J., & Co.
Tyrer, T., & Co.
White, A., & Sons
Woolley, Sons & Co.
Wright, Layman & Umney
EUCALYPTUS
Bickfords | Bosisto's
Drysdale, J. W., & Co.
Evans, Lescher & Webb
Fletcher, Fletcher & Stevenson
Grimwade, Ridley & Co.
Laughland, Mackay & Baker
Mackay, Mackay & Co.
Murdoch, J., & Co.
Tasmanian Eucalyptus Oil Co.
Woods & Co.
EXALGINE
Kühn, B.
EXTRACT MEAT
Armour & Co.
Brand & Co.
Idris & Co. (Viking Co.)
Liebig Co.
Mason, G., & Co., Lim.
Wyeth, J., & Brother
EXTRCTS, FLUID
Allen & Hanburys
Burgoyne, Burbidges & Co.
Evans, Sons & Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire & Francis
Hooper, B., & Co.
Lloyd T., Howard, & Co.
Mess & Co.
Potter & Clarke
Wright, Layman & Umney
FEEDG BOTTLES
Burroughs, Wellcome & Co. (Thermo Safe)
Chemists' Association, Lim.
Evans, Sons & Co.
Hearn, Wright & Co.
Hockin, Wilson & Co.
Kilner Bros. | Lynch & Co.
Marriott, E., & Co.
May, Roberts & Co.
Maw, S., Son & Thompson
Spence & Co.
Surrey Packing Co.
FILTERS
Berkofeld Filter Co.
Fordham, W. B., & Sons, Lim.
Mawson Filter Co.
Silicated Carbon Filter Co.
FORMULA
Brooks, T.

FOOD (Infants' & Invalid's
Allen & Hanburys
Benger's Food
Brand & Co.
Chibnall, H. B.
Evans, Sons & Co.
Goodall, Backhouse & Co.
Hearon, Squire & Francis
King, F., & Co. (Lim.)
Liebig Co.
Lorimer & Co.
Mason, G., & Co. Lim.
Mellin's Food
Nestlé, H.
Ridge, Dr.
Tyrer, P.
Viking Food Co.
Wyeth, J., & Bro.
GINGER ALE
Mills, R. M., & Co.
Ross & Sons (Lim.)
GLYCERINE
Blyton, Astley & Co. (Pastilles)
Boehm, F. | Fink & Co.
Fuerst Bros.
Price's Candle Co., Lim.
Watson & Sons
GOUT & RHEUMATIC PILLS
Bromley, C.
Prout & Harsant (Blair's)
GRANULAR PREP.
Bishop, A., & Sons
Blyton, Astley & Co.
Evans, Sons & Co.
Hearon, Squire & Francis
Lloyd, T. Howard, & Co.
Wright, Layman & Umney
GUM
Fink & Co. (Arabic, &c.)
HAIR PREP.
Anglo-American Drug Co., Lim.
Chesebrough Co.
Edwards & Co.
Horn, O. E.
Ricksecker, Theo.
Truefitt, H. P., Lim.
HERB BEER EXTS
Newball & Mason
Potter & Clarke
Schmidt, Karl
HOMŒOPATHIC
Keene & Ashwell
Leath & Ross
Thompson & Capper
Watson & Wates
HONEY
Evans, Sons & Co.
May, Roberts & Co.
HYPOPHOSPHITES
Duncan Flockhart & Co.
Fellows
Fletcher, Fletcher & Co.
Lorimer & Co. | Symes & Co.
Tyrer, T., & Co.
INDIARUB. GOODS
Currie, W., & Co.
Tyer Rubber Co.
INHALERS
Burroughs, Wellcome & Co.
Hockin, Wilson & Co.
Spirone, Co., The
Toogood, W.
INK [See MARKING INKS]
Bewley & Draper
INSECTICIDES
Rocke, Tompsitt & Co.
Steiner & Co.
Stevenson & Howell
JARS
Rylands, Dan, Lim.
KETCHUP
Tyrer, P.
KOLA PREPRTN
Christy, T., & Co.
LARD
Ewen, J., & Sons
LIME JUICE
Evans, Sons & Co.
Lorimer & Co. | Rose, L., & Co.
LINT
Liverpool Lint Co.
Maw, S., Son & Thompson
Newsome, C.
Robinson & Sons
LIQUORICE
Dennis Di Luggo & Co.
LITHIA
Fuerst Bros.
LOZENGES
Allen & Hanburys
Blyton, Astley & Co.
Davidson & Gray
Gibson, R., & Sone (Manfrs.)
Hill & Son
Jackson, T.
Lorimer & Co.
Pascall J.
Raimes & Co. | Warrick Bros.
MACHINERY
Bennett, Sons & Shears (Lim.)
Burroughs, Wellcome & Co.
Gardner, W.
Martin Perls & Co.
Ohlsen, A.
Pindar, J. W.
Strutners & Craig (Sifting)
Werner & Pfleiderer (Kneading and Sifting)
MAGNESIA
Bush, W., Son & Co.
Duncan, Fuller & Co.
Evans, Sons & Co.
Henry, T. & W. (Calcined)
Hill, A. S., & Sons
Washington Chemical Co

MALT EXTRCT, &c.
Allen & Hanburys
Burroughs, Wellcome & Co. (Kepler's)
Glendenning, W.
Hearon, Squire & Francis
Lorimer & Co.
Moss, J., & Co.
Raimes & Co.
Richardson, John, & Co. (Leicester), Lim.
Robinson & Co.
MARKING INKS
Bond, John (Crystal Palace) (Ink and Pencils)
MEDICINE CHSTS
Burroughs, Wellcome & Co.
Day, Son & Hewitt (Veterinary)
Day & Sons (Veterinary)
MENTHOL
Burroughs, Wellcome & Co.
Christy, T., & Co.
Evans, Sons & Co.
Hockin, Wilson & Co.
Maw, S., Son & Thompson
Tyrer, P. | Vint, T. D.
MERCURIALS
Fuerst Bros.
Howards & Sons
May & Baker, Lim.
Tyrer, T., & Co.
METH. SPIRTS, &c.
Boord & Son | Burrough, J.
Jones & Co.
Phillips, G., & Co.
Smith, S., & Co.
METHYLENE
Robbins, J., & Co.
MICROSCOPES
Darton, F., & Co.
MILK
Nestlé, H. (Condensed)
MORPHIA
Macfarlan, J. F., & Co.
Smith, T. & H., & Co.
OILS, PAINTS, &c.
Browning, J. H., & Co.
Fox, W., & Sons
Pinchin, Johnson & Co.
OINTMNT BASES
Burgess, E., jun.
Burroughs, Wellcome & Co. (Lanoline)
Chesebrough Co. (Vaseline)
Christy, T., & Co.
Lanoline
Lloyd, T. Howard, & Co.
Richardson, J., & Co. (Leicester), Lim. (Anaspalins)
OPIUM
Hopf, R.
OPTICIANS
Botwright & Grey
Darton, F., & Co.
OTTO OF ROSE
Fuerst Bros.
Warrick Bros.
Witrofsky, J. R.
OXIDE OF ZINC
Hubbuck, T., & Son, Lim.
PAPAIN
Kühn, B. (Dr. Finkler)
PAT. MEDCNS, &c.
Anglo-Amer. Drug Co., Lim.
Atkinson & Barker (Infant Preserv.)
Barclay & Sons, Lim.
Beecham, T. (Pills)
Bow's, Dr., Liniment
Bromley, C. (Gout and Rheu.)
Chemists' Association, Lim.
Clarke's Blood Mixture
Congreve, G. F.
Edwards & Son
Evans, Lescher & Webb
Fassett & Johnson
Fenning (Powders)
Goodall, Backhouse & Co.
Holloway (Pills and Oint.)
Hovenden & Sons
Lalor (Phosphodyne, &c.)
Mackenzie, Dr. (Catarrh Cure)
May, Roberts & Co.
Newbery, F., & Sons
Popular Remedies Mfg. Co.
Roberts & Co. (Foreign)
Rooke, Dr. Jim.
Southall Bros. & Barclay
Sutton, W., & Co.
Wilson, A. (Bunter's Nervine)
PEPSIN, &c.
Armour & Co.
Burroughs, Wellcome & Co.
Chassaing & Co.
Fletcher, Fletcher & Stevenson
Kühn, B.
Lorimer & Co.
Newbery, F., & Sons (Ingluvin)
Stern, G. & G.
Warner & Co. (Ingluvin)
PEPPERMINT OIL
Bush, W. J., & Co.
Stevenson & Howell
PEROX. OF HYDR.
Burton, W., & Sons
May & Baker, Lim.
Robbins & Co.
PETROLEUM
Allen & Hanburys
Barclay & Sons, Lim.
Dee Oil Co., Lim.
Fuerst Bros. (Jelly)

PERFUMERY, FANCY SOAPS
Barclay & Sons, Lim.
Bleasdale & Co.
Blondeau & Cie. | Boehm, F.
Blyton, Astley & Co.
Brooks, T. (Solid Perfums)
Brummerstaedt & Lüders
Burroughs, Wellcome & Co.
Chemists' Association, Lim.
Chesebrough Co.
Crown Perfumery Co.
Evans, Sons & Co.
Ewen, J., & Sons
Farina, J. M.
Greensill & Son
Hovenden & Sons
Lanoline | Mulhens, F.
Newbery, F., & Sons (Berdoes
Pears', A & F., Lim.
Potter & Clarke
Price's Patent Candle Co.
Ricksecker, Theo
Sandold & Co.
Sozio & Andrioli
Tidman & Son | Treatt, R. C
Truefitt, H. P., Lim.
Warrick Brothers
West, T. (Okell's Mona)
Woolley, Sons & Co. (Powder)
Wright, Layman & Umney
PHARM. PREPS.
Allen & Hanburys
Armour & Co.
Baiss Bros.
Barron, Harveys & Co.
Bieber, J. D. | Boehm, Fredk.
Boehringer, C. F., & Sohne
Boulton, J., & Co., Lim.
Brady & Martin
Bryce & Rumpff
Burgoyne, Burbidges & Co.
Burroughs, Wellcome & Co.
Chassaing & Co.
Duncan, Flockhart & Co.
Ferris & Co.
Fletcher, Fletcher & Co.
Giles, Schacht & Co.
Hearon, Squire & Francis
Hewlett & Son
Howards & Sons
Jeyes' Sanitary Compounds Co.
Lambert Pharmacal Co.
May & Baker, Lim.
Moss, J., & Co.
Potter & Clark
Richardson, John, & Co. (Leicester), Lim.
Roberts & Co.
Smith, T. & H., & Co.
Southall Bros. & Barclay
Sutton, W., & Co.
Symes & Co.
Tyrer, T., & Co.
White, Alfred, & Sons
Woolley, Sons & Co.
Wyeth, Jno., & Bro.
Zimmermann, A. & M
PHOTOGRAPHIC
Barclay & Sons, Lim.
Blackfriars Photographic Co.
Boehm, Fredk.
Botwright & Grey
Burroughs, Wellcome & Co.
Darton, F., & Co.
Fuerst Bros.
Howards & Sons (Chemicals)
Kent, G. B., & Sons
Tyrer, T., & Co.
White, Alfred, & Sons
Zimmerman & Co.
PILL MACHINES
Pindar, J. W.
Toogood, W. (Coater)
Werner & Pfleiderer
PILLS (Coated, &c.)
Allen & Hanburys
Anderston Apothecaries' Hall
Beecham, Thomas
Blyton, Astley & Co.
Bromley, C. (Gout & Rheu.)
Burgess, E., jun.
Clay, Dod & Co.
Cox, Arthur H., & Co. (tastless)
Davidson & Gray
Dr. Williams
Duncan, Flockhart & Co.
Eade's Gout Pills
Evans, Sons & Co.
Harroline Pill Co.
Hearon, Squire & Francis
Hill, A. S., & Son
Holloway's
Lloyd, T. Howard, & Co.
Lorimer & Co.
McKesson & Robbins
Newbery, F., & Sons
Potter & Sacker
Richardson, J., & Co., Lim.
Ward, S. (Pearl Coated)
Warner, W. R., & Co. (Coate
Wyeth, J., & Bro.
PLASTERS
St. Dalmas, A.
Evans, Sons & Co.
Johnson & Johnson
Leslies, Lim.
Seabury & Johnson
POLISHING
Bradley & Bourdas (Albatum)
Chancellor & Co.
Fordham, W. B., & Sons, Lim.
Oakey, John, & Sons

PORCELAIN GDS
Toogood (E.c. Pots, regist.)
POULTRY FOOD
Spratt's Patent, Lim.
PRINTING
Bowers Bros.
Corsan, J. R. (Glass)
Ford, Shapland & Co.
Hildesheimer, A. (Colour)
Silverlock, H.
Taylor Bros. | Townsend, J.
PUMILINE
Stern, G. & G.
QUININE SALTS
Boehringer, C. F., & Sohne
Howards & Sons
Zimmermann, A. & M.
RECIPES
Brooks, T.
RENNET
Duncan, Flockhart & Co.
RUBBER GOODS
Glover & Sons
Maw, S., Son & Thompson
Tyer Rubber Co.
Victoria Rubber Co.
SACCHARIN
Allen & Hanburys
Burroughs, Wellcome & Co.
SALICIN
Macfarlan & Co.
Smith T. & H., & Co.
SALICYLIC ACID
Burgoyne, Burbidges & Co.
Fuerst Bros. | Kuhn, B.
Zimmermann, A. & M.
SAUCES, PICKLES
Goodall, Backhouse & Co.
Lorimer & Co.
Mason, G., & Co., Lim.
Tyrer, P.
SCIENTIFIC INSTRUMENTS
Darton & Co.
Orme & Co. | Ross & Co.
Wilson, G. W., & Co. (Lim.)
SHAVING
Hovenden & Sons (Euxesis)
Lloyd, Mrs. A. S. (Euxesis)
SHEEP DIP
Fletcher Bros. & Co.
Jeyes' Sanitary Compounds Co.
Tomlinson & Hayward

SCHOOLS, &c.
Central School of Chemistry
City School of Chemistry and Pharmacy, Lim.
Davis, Fredk
Liverpool School of Pharmacy
London Homœopathic and Medical School
Manchester Col. of Pharmacy
Mason College
Metropolitan Coll. of Pharmcy
Middlesex Hospital Medical School
Northern School of Pharmacy
Owens College
Royal College of Science
School of Pharmacy
Sheffield College of Pharmacy
South London School of Pharmacy, Lim.
St. Mary's Hospital School
The School of Pharmacy
Westminster College
Will, W. W.
SEEDS
Potter & Clarke
SELTZOGENES
Bratby & Hinchliffe, Lim.
British Syphon Co.
Evans, Sons & Co.
Geraut, E., & Co.
May, Roberts & Co.
SHOP FITTERS
Bowling & Govier
Bygrave, J. & W.
Evans, Sons & Co.
Howlett, S. | Josephs, P.
Natali & Co. | Natali, E.
Poths, H., & Co.
SOAP
Ayrton & Saunders
Barclay & Sons, Lim.
Blondeau et Cie. (Vinolia)
Bronnley, H., & Co.
Calvert, F. C., & Co.
Cook, E., & Co.
Dodd Bros.
Fordham, W. B., & Sons, Lim.
Jeyes' Sanitary Compounde Co
Martin, Perls & Co.
Muhlens, F.
Pears, A. & F., Lim.
Price, Napoleon, & Co., Lim.
Wright, Layman & Umney
SODIUM PEROXD.
Burton, W., & Sons
SPECTACLES
Botwright & Grey
Darton, F., & Co.
Perken, Son & Rayment

SPONGES
Cresswell Bros. & Schmitz
Evans, Sons & Co.
Peterson, M., & Co.
STAMPS (RUBBER)
Hickisson, J.
STARCH
Chancellor & Co. (Mack's Critchley (Gloss) [Double)
STOPPERS
Austin & Co. (Sprinklers)
Barnett & Foster | Melin, C.
STOVES
Clark, S., & Co., Lim.
SUGAR
Blyton, Astley & Co.
Fletcher, Fletcher & Stevenson
Gibson, R., & Sons
SUGAR OF MILK
Boehm, Fredk.
SULFONAL
Burroughs, Wellcome & Co.
May & Baker, Lim.
SURGICAL
Ayrton & Saunders
Bailey, W. H., & Son
Barclay & Sons, Lim.
Brady & Martin
Cocking, J. T.
Eschmann Bros. & Walsh
Glover & Son
Hatrick & Co., Lim.
Haywood, J. H.
Liverpool Patent Lint Co.
Macfarlan, J. F., & Co.
Maw, S. Son & Thompson
Powell & Barstow
Quelch, H. C.
Richardson, John, & Co. (Leicester), Lim.
Robinson & Sons
Schutze, F., & Co.
Tyer Rubber Co.
Victoria Rubber Co.
Wood, Vincent
SYPHONS
Barnett & Foster
Bratby & Hinchliffe, Lim.
British Syphon Co.
Fordham, W. B., & Sons, Lim.
Idris & Co., Lim.
Kilner Bros. | Melin, C.
SYRUPS
Blyton, Astley & Co.
Fletcher, Fletcher & Stevenson
Idris & Co., Lim. [(Liquore)
TABLETS
Blyton, Astley & Co. (Sulphur)
Corsan, J. R. (Advertising)

TEA
Gt. Tower St. Tea Co.
Pearse & Meeking
TEETHING PADS
Marriott, E., & Co.
THERMOMETERS
Bailey, W. H., & Son
Barclay & Sons, Lim.
Darton, F., & Co.
Evans, Sons & Co.
Hicks, J. J.
Newbery, F., & Sons
Perken, Son & Rayment
TINCTURES
Bieber, J. D.
Evans, Sons & Co.
Hewlett, C. J., & Son
TINS & CANISTRS
Gilbert, J. A., & Co.
TOBACCO
Singleton & Cole (Lim.)
TOILET
Allen & Hanburys (Chrisma)
Burroughs, Wellcome & Co.
Dee Oil Co., Lim. [(Lanoline)
Horn, O. E.
Hovenden & Sons
Lorimer & Co.
Quelch, H. C.
Rickseecker, Theo.
Truefitt, H. P., Lim.
TOOTH BRUSHES
Maw, S., Son & Thompson
TOOTH PASTE
Anglo-American Drug Co.,
Beecham, T. [Lim.
Jewsbury & Brown
Sutton, O., & Co. (Block)
Wilson, A. (Bunter's)
Woods, M. (Areca)
TRADE MARKS
Browne, T. B.
TRUSSES
Bailey, W. H., & Son
Evans, Sons & Co.
Haywood, J. H. | Wood, V.
URETHANE
Howards & Sons
Vaccine Association (Lymph)
VACCINATION
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1,000 PILLS IN SHOW VASE, 5/6.

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WM. R. WARNER & CO.

SMALL SUGAR-COATED PILLS,

Unequalled in their medicinal properties or in SOLUBILITY, the best ingredients being invariably employed.

Suitable for Retail Sale, in Screw-capped Pill Tubes. Not liable to Stamp Duty unless specially recommended or sold as "Proprietary."

No. 142. Gran. Cath. Comp. (Little Cathartic Granules). Aloin, 1-10 gr.; Podophyllin, 1-5 gr.; Ext. Hyoscy., 1-20 gr.; Jalapin, 1-10 gr.; Ext. Nux. Vom., 1-20 gr.; Ol. Res. Capsici, 1-20 gr. Dose, 1 to 4.	Per 1,000, in Plain Bottle, 4/-.	Per Small Stoppered Vase with painted glass label, 5/6.	Per Stoppered Vase, with painted glass label. (5,000.) 21/-.

No. 180.—Gran. Cath. Co. c. Euonymin.—Same as "No. 142," except that ½ gr. Euonymin is used instead of ½ gr. Podophyllin. Prices same as for "No. 142."

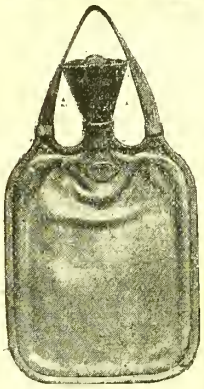
An "all-round" Antibilious Pill, which has found favour wherever introduced, is "No. 120" ("Pil. Cathartic and Liver").

No. 120. Pil. Cathartic and Liver. R Podophyllin, ¼ gr.; Ext. Colocynth, ½ gr.; Pv. Soc. Aloes, 1 gr.; Pv. Scammony, ½ gr.; Pv. Saponis, 1-8 gr.; Ext. Hyoscyami, 1-8 gr.; Gingerine, 1-8 gr. Dose, 2 to 4 pills as a purgative, 1 to 2 pills as an aperient.	Per 1,000, in Plain Bottle, 4/-.	Per Stoppered Vase, with painted glass label, 6/4.	Per Bottle (Bulk) of 5,000, 18/9.

Write for New Complete Price List of PILLS, GRANULES and PARVULES, &c. by W. R. WARNER & CO., giving upwards of 250 Excellent Formulæ, at moderate and greatly reduced prices.

Depot: F. NEWBERY & SONS.

HOT-WATER BOTTLES.



All Chemists should try our "Comfort" Hot-water Bottles, made in Drab, Red, Black and Cloth covered. Retains its heat longer, and affords a more soothing effect than any others. Free from objectionable smell, and, being fitted with Patent Safety Screw, all risk of scalding in filling is prevented.

JACONETS (Pink, Brown, and Double Texture), BED SHEETINGS, SPONGE BAGS, NURSING APRONS, &c.

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WILLIAM CURRIE & COMPANY,

CALEDONIAN RUBBER WORKS, EDINBURGH;

And 22 Castle Street, Falcon Square, LONDON, E.C.

THIRD SEASON, 1893-4.

A UNIQUE APPLICATION OF KNOWN SCIENTIFIC FACTS.

Registered No. 160642. FURFELT Solport Bros.

SOLPORT'S "FURFELT" CHEST PROTECTORS

Registered No. 160642. FURFELT Solport Bros.

Are the result of a successful attempt to utilise as a protective covering for the Chest *the best non-conductor of heat known*, namely, *Coney Fur.*

By incorporating this fur by a new process with fine Undyed Lamb's Wool we have produced a material which is a scientifically perfect protection for the organs of the Chest against cold.

Since they are made from the warmest materials known, are so porous that a candle may be blown out through them, are non-absorbent, free from dye of any kind, soft as silk, perfectly washable, and of moderate price, they have been universally adjudged by the trade and its press

"AN IDEAL CHEST PROTECTOR."

INSIST ON OUR REGISTERED TRADE MARK AS HERE FIGURED.

	No.	0	1	2	3	4	5	6	
PRICES	Single ...	5/6	6/6	9/-	12/-	15/6	20/-	25/-	per doz.
	Double ...	12/-	15/-	20/-	25/6	34/-	42/6	52/-	"
	Vest Shape...	16/6	22/6	30/-	37/6	46/6	58/6	70/-	"

SOLPORT BROS., 66 Shaftesbury St., New North Road, **LONDON, N.**

AND OF ALL WHOLESALE HOUSES.

A GREAT SUCCESS!!

BAILEY'S SUSPENSORY BANDAGES.

A. B. C. SYSTEM.

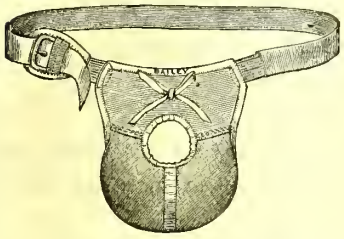


FIG. 1.

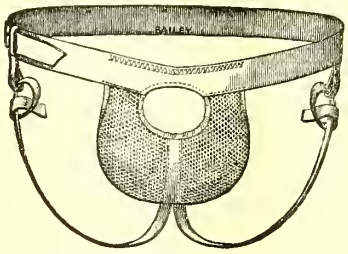


FIG. 2.

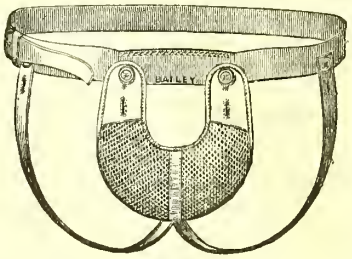


FIG. 3.

Cabinet of 2 dozen assorted, **30/-** USUAL DISCOUNT.

TESTIMONIAL. *The Foregate, WORCESTER.*

GENTLEMEN,—Please repeat our last order for "Suspensory Bandages." We think your idea of arranging the sizes and qualities by the use of numbers and letters a very excellent one, as it is most convenient to the Chemist in ordering, and we find our customers make use of your method. It brings us many repeat orders.

Yours faithfully, ANDERSON & VIRGO.

W. H. BAILEY & SON, 38 OXFORD ST., LONDON, W.

TELEGRAPHIC ADDRESS—"BAYLEAF LONDON."

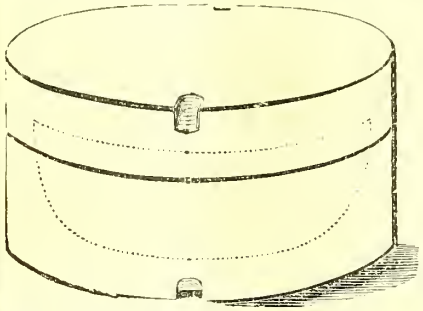
WILLIAM TOOGOOD.

TOOGOOD'S

IMPROVED PATENT

EARTHENWARE COVERED POTS

Are claimed to be the most perfect and convenient yet offered to the Trade.



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

	1 dr.	2 dr.	½	¾	1	1½	2	3	4	6	8 ounces.
ORDINARY THICKNESS—	1/6	1/6	1/6	1/8	1/10	2/-	2/3	2/10	3/6	4/6	5/6 per doz.
THIN FOR DISPENSING—	½	¾	1	1½	2	3	4	6	8 ounces.		
	1/7	1/9	2/-	2/2	2/5	3/-	4/-	5/-	6/- per doz.		

TOOGOOD'S BATHING CAPS. *Write for New Season's List.*
TOOGOOD'S SPONGE BAGS. *Write for New Season's List.*
TOOGOOD'S FLESH GLOVES. *Write for New Season's List.*
TOOGOOD'S FEEDING BOTTLES. *Write for Special List.*

BURLINGTON BUILDINGS, HEDDON ST., REGENT STREET, LONDON, W.

SYR. HYPOPHOS. CO., FELLOWS

CONTAINS THE ESSENTIAL ELEMENTS of the Animal Organisation—Potash and Lime;

THE OXIDISING AGENTS—Iron and Manganese;

THE TONICS—Quinine and Strychnine;

AND THE VITALISING CONSTITUENT—Phosphorus: the whole combined in the form of a Syrup with a **SLIGHTLY ALKALINE REACTION.**

IT DIFFERS IN ITS EFFECTS FROM ALL ANALOGOUS PREPARATIONS, and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

IT HAS GAINED A WIDE REPUTATION, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

ITS CURATIVE POWER is largely attributable to its stimulant, tonic, and nutritive properties, by means of which the energy of the system is recruited.

ITS ACTION IS PROMPT; it stimulates the appetite and the digestion it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact also that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, FINDS THAT NO TWO OF THEM ARE IDENTICAL, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, IN THE PROPERTY OF RETAINING THE STRYCHNINE IN SOLUTION, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. FELLOWS."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles (4/- or 7/-): the distinguishing marks which the bottles (and the wrappers surrounding them) bear can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

WHOLESALE AGENTS—

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

A WORD REGARDING SUBCUTANEOUS MEDICATION.

"Je pense même à raison de ces circonstances, que l'absorption sous-cutanée, qui n'a été employée jusqu'ici sur l'homme, que par exception, devra devenir méthode générale pour l'administration de tous les médicaments énergiques et à l'état de pureté." Thus Bernard; and since that period this method has made wonderful strides, and if any one cause more than another has contributed to the slow progress which marked it in its early career, and militated against its more general adoption, it was the irreliability of solutions and the disappointment caused thereby.

The sterilisation and preservation of solutions for hypodermic use have been before the medical profession and pharmacists for years as one of the main difficulties in the way of this class of galenicals. Antiseptics have been added to help, among them Glycerin, Alcohol, Chloroform, Boric Acid, Salicylic Acid, and, lately, Acetanilid; but even these in many cases are utterly powerless to prevent the formation and development of micro-organisms. The systemic effect of the latter and various contaminations, on their absorption by the cellular tissue, are exceedingly serious, and the risk is always present when using solutions which have been standing for even a moderate length of. time. It cannot be too frequently repeated that preparations intended for subcutaneous use should be prepared, invariably at the moment. Is this always convenient? Is it even possible in many cases? We venture to say that the preparation of a fresh Hypodermic solution for each injection is not feasible by any method giving the same accuracy of dosage and uniformity of physiological result as by the "**Tabloid**" system. But even with this, in addition to accuracy and uniformity, as to the active principle itself, it is a *sine quâ non* that the basis used should be actually harmless. The presence of any extraneous substance or substances which either for the purposes of hastening disintegration or aiding the dissolution of Hypodermic "**Tabloids,**" the active principles of which, though therapeutically powerful, are yet of delicate chemical constitution, is highly to be deprecated. Indeed it may be questioned whether the presence of acid or alkali, or even an accurately neutral salt is not absolutely injurious to the system when thus introduced, even if it do not interfere with the action of the drug with which it may be associated. The importance of this is clearly shown in the declaration in a critique by the British Medical Journal "that these '**Tabloids**' (speaking of B., W. & Co.'s Hypodermic '**Tabloids**') are free from irritative acid salts." The basis used in our Hypodermic "**Tabloids**" we hold to be absolutely harmless, either in contact with the cellular tissue or with the constituents of the blood.

Again, it is of the greatest moment that the active principles in the drug shall be absolutely pure when intended for subcutaneous absorption. Take for instance the case of the Jaborandi alkaloids. What weightier evidence could we quote at the moment than the passage in the really interesting address of Professor Lauder Brunton, at the opening of the pharmaceutical session last Wednesday? "In Nux Vomica, for instance," said the accomplished Professor, "you have Brucin and Strychnine. If you give them together the one will aid the other in acting upon the body of man or animal; but, in Jaborandi, you have Pilocarpine and Jaborine, which have an antagonistic action, and it is quite possible that you may get a specimen of Jaborandi without any action at all, and yet containing a large quantity of each alkaloid, the reason of course being, that the alkaloids so balance each other as to render the drug inert." And this simple explanation amply accounts in our minds for the failures brought before our notice by medical men to produce diaphoresis by means of certain samples of Pilocarpine. The dictum of an eminent practitioner, when speaking of the use of Hypodermic agents, may be very aptly quoted at this point:—

"At no time, in no case, is it more important to a medical man to have an agent of unimpaired activity than when, in anxious moments, he resorts to the Hypodermic method."

Hence the wide adoption and the success of Hypodermic "**Tabloids,**" which, as was declared in The Lancet, are "*very soluble and not at all irritating.*"

B., W. & Co.'s Hypodermic "Tabloids" are supplied in tubes (of non-actinic glass) containing 12 or 20 "Tabloids," at 8/- per dozen tubes. Owing to the high price of *pure* Pilocarpine, we have been compelled to make the following alterations in our Price List:—

ADVANCED IN PRICE.

"Tabloids" Pilocarpine Mur., 1-20 gr.	10/- per doz. oval Vinaigrette bottles of 50 in each.
Hypodermic "Tabloids" Pilocarpine Mur., ½-gr.	22/- per doz. Tubes of 12 in each.
" " " " ⅓-gr.	15/- per doz. Tubes of 12 in each.
" " " " ⅙-gr.	12/- per doz. Tubes of 20 in each.

BURROUGHS, WELLCOME & CO., MANUFACTURING CHEMISTS.

LONDON— Snow Hill Buildings. | NEW YORK— 82 & 84 Fulton Street. | MELBOURNE— 456 Collins Street West. | PARIS—Pharmacie Centrale de France. | BRUSSELS 80 Montagne de la Cour.

A CHEAP AND PROFITABLE LINE TO STOCK.

"VASELINE" (Blue Seal, without Cardboard Case)

No. 1 size (6d. Bottle) in Boxes of ¼ Gross, 24/- net per gross.
No. 2 „ (1s. „) „ „ 1 Dozen, 48/- „ „
1-lb. Tins, by the Case of 200 Tins, 1/- per tin.

CHESEBROUGH MANUFACTURING CO., 42 HOLBORN VIADUCT, LONDON, E.C.
Sole Proprietors and Makers of "VASELINE."

KEPLER ESSENCE OF MALT.

In dietetics for the invalid, the Kepler Essence of Malt has already won its way to an enviable position and has distinctly shown its superiority over all so-called nourishing stouts and ales as a food beverage. Its superior diastasic property, its palatable character, and its freedom from intoxicating qualities, raise it at once far above the ordinary level of the very best and most carefully prepared fermented malt liquors. We are assured by competent judges who have tried it in their clinics that two fluid ounces of the Kepler Malt Essence are equal in therapeutic value to a pint of the best stout or ale. This is a most important fact, to be kept well in mind when recommending or prescribing suitable diet for the dyspeptic, the ill-nourished, the sick, or the convalescent. The Kepler Extract of Malt makes a pleasant beverage when mixed with aërated water and milk.

Supplied to the Trade in champagne pints and quarts, at 14/- and 24/- per dozen.

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

BEST BLACK INK KNOWN.

DRAPER'S INK
(DICHROIC).

When this Ink is used writing becomes a pleasure.
May be had from all Chemists and Druggists and Stationers.

Can be obtained in London through Messrs. Barclay & Sons, Farringdon Street; W. Edwards & Son, 157 Queen Victoria Street, E.C.; F. Newbery & Son, Newgate Street; S. Maw, Son & Thompson, Aldersgate Street; Ayrton & Saunders, Duke Street, Liverpool; Goodall, Backhouse & Co., Leeds; John Heywood, Deansgate Street, Manchester; James Hemington, 6 Moor Street, Birmingham; Henry Hodder, Broad Street, Bristol.

In Jars, 6d., 1s., and 2s. each.

London Depot—HAYDEN & CO., 10 Warwick Sq., E.C.
SOLE MANUFACTURERS—
BEWLEY & DRAPER (LIM.), DUBLIN.
See "Chemist and Druggist," December 15th, 1874.

Benger's Food.

For Infants, Children, and Invalids.

GOLD MEDAL AWARDED—HEALTH EXHIBITION, LONDON.
HIGHEST AWARD—ADELAIDE, 1887, and MELBOURNE, 1888.

The Lancet describes it as "Mr. Benger's admirable preparation."

The London Medical Record says: "It is retained when all other foods are rejected. It is invaluable."

The British Medical Journal says: "Benger's Food has by its excellence established a reputation of its own."

The Illustrated Medical News says: "Infants do remarkably well on it. There is certainly a great future before it."

Benger's Food is sold in Tins at 1/6, 2/6, 5/, & 10/, by Chemists, &c., Everywhere.
Wholesale of all Wholesale Houses.

THE CHEMIST AND DRUGGIST

Established 1859.

Chief Office: 42 CANNON STREET, LONDON, E.C.
Branch Offices: FINK'S BUILDINGS, MELBOURNE, VIC., and EMPIRE CHAMBERS, YORK STREET, SYDNEY, N.S.W.

A weekly journal, supplied from the chief office in London to subscribers and persons connected with the trade only. Subscription, 10*s.* per year, payable in advance, including a copy of the Diary next published, and postage to any country in the world. Single copies, 4*d.* each. Cheques and Postal Orders should be made payable to "Edward Halse," and crossed "Martin's Bank (Limited)."

As an Official Journal

The Chemist and Druggist is supplied regularly to every member of the following Societies:—Pharmaceutical Society of Ireland, South African Pharmaceutical Association, Midland Pharmaceutical Association of New Zealand, Central Association of New Zealand, Otago Pharmaceutical Association, Pharmaceutical Society of Queensland, Pharmaceutical Society of South Australia, Pharmaceutical Society of Western Australia, and Tasmanian Pharmaceutical Society.

CONTENTS: Vol. XLIII. No. 18.

	PAGE
Bankruptcy Reports	633
Brewers' Exhibition	627
Business Changes	633
Cookery and Food Exhibition	632
Corner for Students	622
Correspondence	646
Deaths	637
Deeds of Arrangement	641
Editorial Comments:—	
Prescribing Chemists and Complaining Doctors	634
Lecture Notes	635
Dr. Hassall's Autobiography	636
Notes	637
English News	623
French Pharmaceutical News	625
Gazette	632
Irish News	625
Legal Reports	626
New Companies	641
Personalities	633
Preliminary Examination	639
Scotch News	625
The Winter Session	638
Trade-marks Applied for	639
Trade Notes	632
Trade Report	642
World's Columbian Exposition	640

TO-DAY,

Saturday, October 28, is the last day that the publisher of The Chemists' and Druggists' Diary, 1894, can receive copy or orders for advertisements in that edition of the Diary. This note may catch the eye of some firms who would be disappointed were they to lose the opportunity; they should, therefore, telegraph to "Chemicus, London," at once what their wishes are, and the publisher will do his best to meet them. The office, 42 Cannon Street, E.C., closes at 1 P.M. on Saturdays.

Next Week.

Meetings, &c., to be held, and business to be transacted thereat. Suitable notices will be inserted in this section if received by the Editor on or before Wednesday.

Wednesday, November 1.—*Brighton Junior Pharmacy Association*, at 9 P.M. Social and musical.

Thursday, November 2.—*Midland Pharmaceutical Association, Grand Hotel, Birmingham.* Opening address by Dr. Charles Symes.

Thursday, November 2.—*Chemists' Assistants' Association*, 103 *Great Russell Street*, at 8.30. Discussion: "How shall we check unjust trade?" Opened by Mr. C. E. Pickering.

Friday, November 3.—*Glasgow and West of Scotland Pharmaceutical Association.* Smoking concert in Alexandra Hotel, at 9.15 P.M.

Summary.

A number of interesting dispensing notes are dealt with in our Correspondence pages.

Two chemists have figured in police-courts, charged with assault. Both charges were sustained.

The celebrated analyst, Dr. A. Hill Hassall, has written his autobiography, and we comment upon it.

We print the names of those who have passed the Pharmaceutical Preliminary examination in Great Britain this month.

Herb-beer containing 8 and 10 per cent. of proof spirit is what an old lady at Chapel-en-le-Frith has been fined for selling.

A chemist's assistant has been sentenced to six months' imprisonment for stealing a quantity of tools from his employer at Portsmouth.

The Major KBr question is by no means settled, for we print a number of letters in which the correctness of last week's solutions is disputed.

A firm of chemists in the City have elicited the information from the Board of Inland Revenue that the sale of Angostura bitters without a spirit-licence is illegal.

The Pharmaceutical Society of Great Britain may be asked to join with the Irish Society in getting the question of the sale of poisonous patent-medicines decided in the High Court.

Some medical men are endeavouring, in medical journals, to exaggerate the evil of counter-prescribing by chemists, and we accordingly deal with the matter in an Editorial note.

The average working-man mind appears to be unequal to the task of intelligently grasping the mysteries of economic botany. This is the moral which we deduce from "Lecture Notes."

We report very fully upon the exhibition of the mineral-waters and beverages exhibition now open in the Agricultural Hall, London. The exhibits are more numerous this year, and, in some respects, more interesting than formerly. We also give a brief report of the Cookery Exhibition now open.

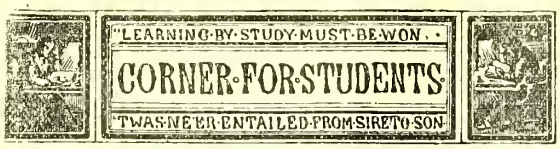
An Uxbridge Road chemist sold to a lad 2 drachms of morphia for testing in chemistry. The boy took about ½ drachm of it, and at the inquest the Coroner said the Pharmacy Act was a ridiculous Act, and required amending.

Mr. Moss's complete report of the "Corner for Students" competition is given in this issue. The students did very well, on the whole, with the mixture of ferrous, manganous, and ammonia salts. Incidentally, a delicate test for ammonia is given.

August Levermore and Charles R. Levermore pleaded guilty at the Central Criminal Court to the charges brought against them in connection with precipitated chalk transactions. It was intimated, through their counsel, that the sums received had been repaid, and they were discharged to come up for judgment if called upon.

In a case of lard adulteration, for which there has been a prosecution under the Sale of Food and Drugs Act at Steyning, the curious circumstance was reported that the Somerset House analysts refused to examine the reserved sample because the paper wrapping had absorbed some of the more liquid portion of the fat. The retailer was fined.

The Winter Session has a brilliant beginning. Mr. Lloyd Williams tramps his summer holiday over again, and has taken the Chemists' Assistants' Association along with him from Malvern to Aberystwith on lantern-slides; the Brighton juniors have dined, with some of their seniors as guests; the chemists of East Aberdeenshire have resurrected an association which has not been heard of for years, the new Bolton Association has met and formed plans; and the committee who are moving in the direction of federating local associations send us their scheme. Professor Cash is to open the North British Branch session a fortnight hence, so that the prospects all round are excellent.



Conducted by Richard J. Moss, F.C.S., F.I.C.

Reports.

In our last issue we stated that the mixture of salts issued for the last exercise in qualitative analysis consisted of 3 parts of ferrous sulphate, 1 part of manganous sulphate, and 1 part of ammonium alum. The number of packets sent to correspondents was 78, and the number of reports received was 45 The number of failures in the detection of the several constituents was:—Iron, 2; manganese, 15; aluminium, 25; ammonium, 25; and the sulphuric radicle, 1.

The two constituents which presented the greatest difficulty were present in comparatively small quantity; the powder contained only 1·2 per cent. of aluminium, and 0·8 per cent. of ammonium. Had these constituents been present in three or four times the quantity, we have no doubt that very few of our correspondents would have failed to detect them. The analysis was a test of the care and manipulative skill bestowed upon work.

Some of our correspondents may suppose that the method employed for the separation of the aluminum was defective, and that with another method better results would have been obtained. This is not the case; there is no method described in any of the reports before us which is not capable of yielding correct results if carefully carried out.

It is remarkable that there were so many failures in the detection of the ammonium, which in nearly every case was made the subject of a special test. Even when the very delicate test depending upon the use of calcium hydrate was employed, many of our correspondents failed to obtain any evolution of ammonia. The following experiment will show that there was really no difficulty in the matter—it was only necessary to exercise a reasonable amount of care:—A quantity of the powder, weighing 2 milligrammes—that is to say, about $\frac{1}{30}$ grain, was placed in a watch-glass, and mixed with about ten times its bulk of dry calcium hydrate. Enough water was then added to make the mass into a thick paste—less than a drop sufficed. The watch-glass was then covered with a glass plate, to which a piece of red litmus-paper adhered, and in ten seconds the paper had become quite blue. The piece of litmus-paper was 10 millimetres long by 2 broad, and it was very slightly moistened—just enough to make it stick to the glass. It was not necessary to employ so very little of the powder, except for the purpose of illustrating the sensitiveness of the test; and considering that at least ten times the quantity would be available in actual practice, it will be seen what a very simple matter it was to detect the ammonium. The detection of the aluminium presented no greater difficulty.

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

Note.—All communications should include the names and addresses of the writers.

H. Bowden.—We regret to find that your report, to which we have assigned third place with 96 marks, was accidentally omitted from our list last week. You attached too much importance to the potassium; the trace present was barely sufficient for identification.

Cortex.—As you observe, it was important to detect the manganese by a separate test. It is impossible to devise any system of analysis that will be effectual in all cases, and for this reason analytical charts must not be too closely followed. It is only by a study of the reactions upon which the chart is based that the student can tell when to vary the procedure.

H. Read.—The detection of acetic acid is a common difficulty. When any doubt exists you should compare the doubtful reactions with those of a known acetate, employing a very dilute solution if the reactions in question are feeble.

Campanulate.—The fact of your having obtained a dark-coloured precipitate with ammonium sulphide showed that you did not succeed in removing all the iron and aluminium in the preceding precipitation.

Vigovina.—You seem to have assumed that because the precipitate produced by ammonia was red it contained iron only; it should have been examined for aluminium and chromium.

Nihil.—Your test for ammonium must have been very roughly applied. Even boiling with caustic alkali—a very crude test—gave enough ammonia to admit of its detection by smell.

Cocker.—It is difficult to understand the failure of your test for ammonium. As stated elsewhere, a very minute quantity of the powder sufficed for the detection.

Frango.—After filtering off the ammonium-hydrate precipitate, you should have added to the filtrate a few drops more of ammonium hydrate, to make sure that enough of the reagent had been employed to completely precipitate the iron group. With this precaution ammonium sulphide gave a nearly colourless precipitate, consisting solely of manganese sulphide.

Cono.—Imperfect fusion with sodium carbonate and nitrate was the probable cause of your failure to detect aluminium. To ensure that you conduct the operation properly, you should try it with the precipitate obtained from a mixture of about 4 parts of ferrous sulphate with one of alum.

W. J. H.—The white precipitate obtained with calcium chloride was calcium sulphate, not oxalate. When a sulphate is present in quantity, you must bear in mind, when using a salt of calcium as a reagent, that calcium sulphate is only sparingly soluble. The same precaution is necessary in using some of the salts of the heavy metals as reagents, notably those of silver and mercury. Calcium oxalate is readily distinguished from the sulphate by its conversion into carbonate on ignition.

P. Harris.—The precipitate you observed with silver nitrate was chiefly metallic silver. It was due to the reducing action of the ferrous sulphate in the mixture upon the silver salt.

Yataff.—You did not allow sufficient time for the formation of the precipitate of manganous sulphide. The precipitate you supposed to be due to magnesia consisted of ammonio-manganous phosphate.

C. A. W.—Concerning the reaction which you supposed due to a sulphite see remarks to P. Harris.

Perseverance.—See remarks to W. J. H.

Iodic Hydrarg.—Prepare a mixture of the same salts with one-tenth of the quantity of ammonium alum, and you will find that with reasonable care you can detect the ammonium by the test you employed.

Victory.—In examining the sodium-hydrate solution for aluminium you must be careful to ensure that the fixed alkali is completely neutralised, and that ammonia is used in sufficient quantity to be distinctly, but not largely, in excess.

Edo.—See remarks to W. J. H.

Perseverando Vincimus.—In testing for phosphoric acid the solution to which an excess of the nitric-acid solution of ammonium molybdate is added should be warmed to about 50° C. It should not be boiled.

R. B. Carnegie.—Of course the iron present interfered to some extent with the colour produced by the manganese on fusion with the alkaline carbonate and nitrate, but you ought to have noticed that some parts of the fused mass were brilliantly green on cooling.

A. W. Latham.—You may have a notable quantity of ammonium present and yet not observe any sublimate on heating the mixture of salts in a tube. A special test should always be applied.

Styrax.—For an explanation of the reaction with silver nitrate, see remarks to P. Harris.

R. A. W.—The green mass you obtained by fusion with potassium carbonate and nitrate required to be accounted for, and it could only be explained by the presence of manganese.

H. Tinker.—You ought to have detected the aluminium by the method you employed. A great deal depends upon the employment of the reagents in proper quantity. You ought to practise the separation of iron and aluminium until you can isolate and detect the latter metal with certainty, no matter how much iron may have been present originally.

Æsculap.—See remarks to W. J. H.

H. A. L.—The results you obtained in the preliminary examination showed clearly that a tartrate was not present. See remarks to W. J. H.

Hopeless.—You worked under a great disadvantage this time, but do not despair. You only want practice.

English News

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

Stealing from a Chemist.

At the Portsmouth Quarter Sessions on October 20, John William Springgay, 47, druggist's assistant, was charged with stealing a number of tools, value 10*l.* 0*s.* 4*d.*, the property of his employer, Mr. Timothy White, chemist, of Commercial Road, Landport; and William Slape, dealer, of Charlotte Street, was charged with receiving a quantity of the tools, value 7*l.* 18*s.* 5½*d.*, knowing the same to have been stolen. Springgay, who pleaded guilty, was seen going into the other prisoner's shop by Mr. White and his manager, and was told to go back to prosecutor's shop, where he was at once discharged. Slape, on being visited by a detective, denied that he had bought any goods from the other prisoner. Asked what was in a chest in the shop, Slape said it was empty, but it was found nearly full of tools stolen from prosecutor's shop. Springgay, who was called as a witness, said Slape knew perfectly well that he was employed at Mr. Timothy White's, and he had had things from him at various times. Slape was convicted, and sentenced to fifteen months' hard labour; the other prisoner to six months'.

Burglary at a Chemist's.

The house of Mr. H. Litten, chemist, of Vicarage Road, West Ham, was entered by burglars on Thursday last week. Entrance was effected through the kitchen window, and a number of coats and umbrellas were carried off. The thieves do not appear to have disturbed the inmates in any way, and they stole nothing from the shop attached, which is also a branch post-office.

Carbolic-acid Poisoning.

Emma Brazier, a servant-girl at Dover, when her mistress had gone out, went upstairs, where a bottle of carbolic acid for disinfectant-purposes was kept, drank about 6 oz., and died almost immediately.

Curing Jaundice.

An inquest was held at Belchamp Otten last week respecting the death of a girl named Alice Kemp, aged 8 years. Deceased's parents believed she was suffering from jaundice, and purchased some herb-mixture from a labourer named Nathan Chaplin, which he said was a good cure for jaundice, and which he sold at 2*s.* a pint. Chaplin told the Coroner that the parents came to him for a little herb-tea as the child had jaundice. He put two teaspoonfuls of turmeric into a decoction of the herb known as salantine. A verdict of death from natural causes was returned.

Fire at a Chemist's.

On Saturday night, between 8 and 9 o'clock, a fire was discovered in a bedroom of the premises of Mr. Twelves, chemist and druggist, 459 London Road, Sheffield. The brigade put out the fire before it spread to the stock. The cause of the outbreak was a defective flue in the chimney.

Accident to a Sheffield Druggist.

On October 20, Mr. J. T. Leslie, druggist, of Walkley Road, Sheffield, was driving down Greaves Street, when the horse, a restive one, took fright at something, and commenced kicking violently. Mr. Leslie jumped safely out of the trap, but the horse bolted and dashed down the street. After a time it fell, smashed both shafts of the trap, and sustained severe cuts about the haunches. The cart at the time contained some casks of vinegar.

Fire.

A fire occurred at Messrs. Bourne, Johnson & Latimer's warehouse in Furnival Street, London, E.C., last Monday night. Thanks to the promptness of the fire-brigade, the fire was confined to the top floor, which was almost gutted. The lower floors were damaged by heat, smoke, and water. The cause of the fire is unknown. We are told that the business of the firm has not been interfered with.

Intoxicating Herb-beer.

At Chapel-en-le-Frith, on October 20, an old lady named Rebecca Southern, residing at Whalley Bridge, was summoned, on two charges, for retailing a pint of sweets and made wines and a pint of herb-beer without a licence. The prosecution had been undertaken by the Excise authorities owing to complaints having been made that persons frequented the old lady's house, obtained beer, and became intoxicated. The local Excise officer had purchased 2 pints of the stuff, for which he paid 6*d.* These were sent to Somerset House, and on being analysed, one sample was found to contain 3 per cent. of proof spirit, another 8 per cent., and a third 10 per cent. The second sample was about as strong as Guinness's stout, and the third about as strong as strong ale. It was made of herbs and sugar. The defendant said she did not think she was doing wrong, and if it was intoxicating it was through age. The Bench inflicted a fine of 20*s.* and costs in the first case, and 10*s.* and costs in the second.

Assaults by Chemists.

At the Lambeth Police Court on Thursday last week, Joseph Sowersly, a chemist, carrying on business at Kennington Road, was charged before Mr. Hopkins with having committed a violent and unprovoked assault upon his next-door neighbour, Mr. J. B. Jackson. There was a cross-summons by Sowersly against Jackson for a similar offence.

Mr. Sydney, solicitor, who appeared for the complainant, said that his client had for some time been subjected to annoyance from the defendant. In July last, the latter took out a summons against the complainant for alleged wilful damage, but it was dismissed with costs, and that circumstance appeared to have caused friction. About 10 P.M. on October 4, the complainant was proceeding along North Street, when he was suddenly set upon by the accused, who knocked him down and then kicked him in a cowardly manner. The prosecutor and several witnesses were called to bear out the statement as to the assault, but in answer to the charge, Sowersly declared that Jackson persistently knocked and kicked at the door of his shop, and that when he opened it the latter struck him a violent blow in the face. On one occasion Jackson and another man both set upon him and assaulted him.

Mr. Hopkins said it was a disgraceful feud between two tradesmen, and Sowersly would be bound over in 20*l.* to keep the peace. He would also have to pay the costs, and the cross-summons would be dismissed.

At the Ipswich County Court, on October 19, before his Honour Judge Wilmot, John William Hammond, milkman, sued Arthur Pain, chemist, Cornhill, Ipswich, to recover the sum of 7*l.* for personal assault, and 3*l.* for an assault on his horse.

Mr. Miller, who appeared for the plaintiff, said the defendant was riding on horseback, and at the corner of King Street the horse shied at a grating, thereupon he beat the plaintiff unmercifully, and thrashed his horse. The plaintiff, in his evidence, stated that he believed the defendant said when he thrashed him, "I'll learn you!" He was not going at more than five miles an hour. There was room for Mr. Pain and two or three others like him to pass. He was laid up for two or three weeks, and had to employ a man. Several witnesses gave evidence in support of the plaintiff's case. Mr. Poyser, for the defence said his client was about to turn the corner when he was greatly inconvenienced by the plaintiff, who was on the wrong side of the road, and as he had been treated by milkmen in a similar manner on previous occasions, he lost his temper and struck the horse. It was done in a moment of irritation, and he now regretted it. He did not think that he touched the plaintiff. The defendant said he only struck the horse once. The defendant went round the corner so closely to his mare as to touch it. If the plaintiff had asked him to recompense him for striking his horse, he would have probably given him half-a-crown.

His Honour, in giving judgment, said the only way to reconcile the evidence was to suppose that the defendant was carried away by his feelings, and struck right and left

without knowing it. The fact of one witness saying he only saw one blow struck did not dispose of the rest of the evidence. It was a serious thing to horsewhip a man in the public street. The defendant had offered no apology, and he did not even admit having committed the assault. There would be judgment for the plaintiff for 6*l.* damages.

Giving Change.

At the South-Western Police Court, on Saturday, a married woman, named Eliza Haynes, was charged before Mr. Haden Corser with having committed a series of petty frauds upon tradesmen in the neighbourhood of Tooting and Balham. It was stated that there were fourteen cases against the prisoner, but only three were gone into. Her system was to make a small purchase, and, upon receiving her change, to declare that she had been given a shilling short. By that means she obtained a shilling from the assistant at a local chemist's at Tooting Broadway, but her scheme became so notorious that she was closely watched, and ultimately given into custody. For the defence, it was contended that the accused was suffering from ill-health, and was not accountable for her actions. The Magistrate granted a remand, for the purpose of getting evidence to that effect.

Drug-contracts.

The Gosport and Alverstoke Local Board have accepted the following tenders:—Crude Sanitas and Sanitas powder, Sanitas Company; carbolic acid and powder, and chloride of lime and disinfecting-fluid, Messrs. Adams, Webster & Co; and permanganate of potash, Mr. Timothy White, Portsmouth.

On recommendation of the Public Health Committee, the St. George-the-Martyr (Southwark) Vestry have decided to invite tenders for the supply of carbolic powder and liquid for disinfecting-purposes.

Wine-licence.

Mr. E. Pratt, pharmacist, High Cross, Barnstaple, has been granted a wine-licence.

The L.C.C.'s Chemist and his Invention.

At the usual weekly meeting of the L.C.C. on Tuesday, the General Purposes Committee reported that Mr. Dibdin, the chemist to the Council, had applied, in accordance with the standing orders relating to inventions by officials, for permission to take out a patent for an invention in connection with photographic apparatus. The invention, for which Mr. Dibdin stated that he had obtained provisional protection, consists in the application of the principle of polarisation, by means of which strong reflected light is neutralised more or less as may be necessary. The standing orders provide that the Council's approval should be subject to such conditions as to assignment of the patent, or to its use by the Council as the Council may think fit to impose. The committee thought that in this case Mr. Dibdin's request might properly be acceded to, and that, as the invention appears to be in no way connected with the Council's service, no condition need be attached. The Council adopted the committee's recommendation and granted the request.

Pushing Perfume.

At the North Staffordshire Musical Festival held at Hanley last week, Mr. Edmund Jones, chemist, perfumed the hall with his "Trentham Bouquet." The Duchess of Sutherland, who was present with a distinguished party from Trentham Hall, has expressed to Mr. Jones her appreciation of the perfume, and sent him an order.

A Lingering Death.

Joseph Orme, aged 11 years, swallowed a quantity of caustic soda in March last, and was admitted to the Southern Hospital, Liverpool, where he remained under treatment until April 14, when he was discharged. He was re-admitted on April 25, and remained until Monday, when he died from stricture of the æsophagus.

A Dentist's Representative charged with Embezzlement.

At Bromley (Kent) Petty Sessions on Monday, Edward Victor Leon, of Beckenham, was charged with embezzling certain sums of money received on behalf of his employer, Mr. Phillip, of the American Dentistry Association. The prosecutor, who lives at 6 Grosvenor Street, London, and carries on business at various places, had engaged the prisoner for three years from February 10 to attend his branches at Bromley and Beckenham. For the first year the prisoner's salary was to be 2*l.* 10*s.* per week, for the second year 3*l.* per week, and for the third year 3*l.* 10*s.* per week.

Evidence was given by four customers with regard to payments, which it was alleged had not been accounted for, and the prisoner was committed for trial, bail being allowed—prisoner himself in 100*l.*, and two sureties of 50*l.* each.

Master's Day.

The Society of Apothecaries celebrated, on Tuesday, the festival known as "Master's Day," by attending service at the church of St. Anne, Blackfriars, and by dining together in a sort of family party at their quaint old hall. The occasion was interesting on several grounds. First, because the spacious suite of rooms just built for the medical and surgical examinations was first thrown open to the inspection of members. Next, because the Master for the year, Mr. John Rees Withecombe, as a surgeon in the East India Company's service, took an active part in the battles of Chillianwallah and Guzerat, and was present at the signing of the treaty by which the late Maharajah Dhuleep Singh ceded his dominions to the British Crown.

The Pharmacy Act—"A Ridiculous Act."

Mr. C. Luxmoore Drew held an inquest on Tuesday, at Hammersmith, respecting the death of Roland Essex Ashley Teesdale Fencock, aged 15, son of a staff paymaster in the Navy, residing at Shepherd's Bush. It was proved that the lad died from poisoning by morphia, self-administered, on Friday. He had lately suffered from neuralgia. Mr. John Arthur Barnett, chemist, of Uxbridge Road, said he had known the lad for a number of years. On Thursday he came to the shop and asked for 2 drachms of morphia, saying he wanted to use it for testing in chemistry. Witness had often sold him acids for the same purpose. Witness thought he was considerably older than 15, and advised him to be very careful, as it was poison. The deceased said, "I want to take it to the laboratory." He signed the register with his name and address. By the Coroner: It was a poison under Schedule II., and was often used for analytical purposes. Witness thought he was a student at Kensington, as he said he was studying chemistry. He had often bought test-tubes and chemical apparatus, but had never had morphia before. He had 2 drachms; 2 or 3 grains had been known to kill. Dr. William Prior Mallam, said death was undoubtedly due to morphia-poisoning. In a drawer witness found 1½ drachm of morphia. By the Coroner: An advanced student might require morphia for testing. The Rev. G. E. Mackie, head master of the Godolphin School, Hammersmith, where the lad was a scholar, said he used to study chemistry, but last May he removed his apparatus, saying he was going to study at the Polytechnic School. Witness did not think that was the truth. The boys were not allowed to experiment in drugs. Lately the boy had been given to alternate fits of dulness and romance, and witness was convinced that he had been experimenting on himself with drugs, as he often appeared dull and was rude to the masters. On the morning the boy purchased the morphia he asked a fellow-scholar, the son of a medical man, to ask his father how much morphia would kill, and the reply he received was, "Two grains a weak man."

The Coroner, in summing up, said the chemist had carried out all the regulations required under the Poisons Act, but it seemed perfectly monstrous that the law should allow a boy of 15 to be able to purchase such a drug. It was a ridiculous Act, and the sooner it was altered the better. There was no doubt the boy's death was due to morphia-poisoning, but it was for the jury to say whether such death was due to misadventure or was caused with suicidal intent. If the latter, they would have to decide the state of his mind at the time. The jury, after some deliberation, returned a verdict that the deceased died from morphia-poisoning, self-administered, and that such death was due to misadventure, and added a rider that they considered further restrictions should be placed on the sale of poisons.

Irish News.

The Kay's-essence Prosecution.

The judgment in the recent prosecution for the sale of Kay's essence of linseed has been laid before counsel by the Pharmaceutical Society of Ireland with a view to instituting an appeal to the superior Courts. It is considered by some members of the Council that if an appeal should be decided on the Pharmaceutical Society of Great Britain might be invited to join with the Irish Society in having the question of "sale of poisons under patents" adjudicated upon in the High Court.

Pharmaceutical Society of Ireland.

October Registered Druggist Examination.—Messrs. W. Armstrong, S. Green, S. Hill, S. G. Mackey, J. S. Moore, S. Niblock, J. Raitt, and J. G. Whiteside passed. Two were rejected.

Attempt to Bribe a Food and Drugs Inspector.

At the Commission Court, Dublin, on Thursday, October 19, a man named Patrick Devitt, of Bride's Alley, Dublin, was sentenced to one month's imprisonment with hard labour for attempting to bribe a Food and Drugs inspector named Timothy Lyons, in the employment of the Dublin Corporation. Lyons had seized a sample of milk from a dairyman named Farrell, of Meath Street, and Devitt made two attempts to induce Lyons not to prosecute by handing him envelopes containing 1*l.* each. The first of these Lyons returned to Devitt, but the second one he handed to the head of his department, who instituted the prosecution.

Accident to Sir Charles Cameron, City Analyst, Dublin.

A painful accident happened to Sir Charles Cameron, M.D., on Tuesday, October 24, through the bursting of a bottle of whisky which he was uncorking for the purposes of analysis. Besides a severe cut round the basis of the thumb, a deep cut was inflicted on the leg. Though painful, the injuries are not of a serious nature.

Scotch News.

The Sale of Keating's Insect-powder.

An action has been raised in the Court of Session, Edinburgh, in which the proprietors of Keating's insect-powder crave that William Foster, wholesale drysalter, 94 High Street, Edinburgh, should be interdicted from selling, as Keating's insect-powder, a powder not manufactured by the complainers. The respondent maintains that the proceedings are wholly unwarranted by the facts, as he has practically no sale for insect-powder of any kind. Pending the trial of the case Lord Low has granted interim interdict upon caution being found by the complainers.

We hear that several chemists in Edinburgh have been threatened or served with notices of actions, a similar infringement of rights being alleged. In consequence of this, and the manner in which the sales have been effected, the Edinburgh and District Chemists' Trade Association contemplate issuing a circular warning their members to be careful.

French Pharmaceutical News.

(From our Paris Correspondent.)

In Memory of Chevreul.—On Friday last a bronze statue of Chevreul was erected in the Botanical Gardens of Argess, the native town of the illustrious chemist. A day is to be fixed at a later date for the inauguration, and on the same occasion special *fêtes* will be organised.

An Artificial Violet-odour.—At the meeting of the Academy of Sciences on Monday last, M. Friedel stated that M. Thiemann, Berlin, of vanillin fame, and M. Krüger have succeeded in isolating the odoriferous matter from dry orris-root. It takes the form of an acetone which they have called *irone*, and they have carefully studied its properties and numerous transformations. By the action of acetone on citral, an aldehydic body extracted from essence of lemon and *Andropogon Schœnanthus*, they have obtained a compound named by them *pseudo-ironone*, and which by the use of diluted sulphuric acid becomes *ironone*, a cyclic acetone having the odour of the violet. M. Friedel presented numerous samples to the Academy, which represented the odour of the violet exceedingly well.

A Curious Experience.—At the last meeting of the Society of Medicine and Surgery, Dr. de Beauvais related the following curious experience that had come under his notice:—A youth of 17 years, a prisoner at Magas, as the result of an attack of indigestion, vomited an indiarubber tube three yards in length. On inquiry, it transpired that the boy had swallowed the tubing some months previously as the result of a bet. This relatively large quantity of indiarubber had not provoked any special symptoms of irritation, and the indigestion, to which its recovery was due, arose from over-smoking. Part of the tube appeared first and broke off, but by administering two grammes of ipecacuanha the whole three yards were evacuated. The black indiarubber of which the tube was made had become very brittle, but in other respects was quite unaltered.

The Franco-Russian Festivities have kept all Paris in a state of excitement for more than a week past. The "oldest inhabitants" can remember no such crowds in the streets, and no equal to the festivities. Business has been practically at a standstill; retailers have done very little trade, and wholesale firms have not been much better off. Pharmacists, unfortunately, have had more than a fair proportion of that *clientèle* which is the outcome of processions and such-like festivities, which turn their *officines* into branches of the hospital accident-wards. A pharmacist near the Hôtel de Ville had a somewhat unique experience. A woman, whose state was almost more than interesting, had allowed her feminine curiosity to outstep her discretion, and one evening last week she joined the busy throng in the street. The pressure of the crowd and the excitement proved too much, for the woman gave birth to a child, in view of some 10,000 people. The mother and baby were, of course, carried to a pharmacy. M. Schlagdenhauffen, formerly professor at the Strasburg Faculty of Medicine, and now director of the Nancy School of Pharmacy, has been among our visitors, and has been made a good deal of by MM. Berthelot, Moissan, Pasteur, and other celebrities. The surgeons connected with the Russian fleet who have joined the naval officers in coming to the gay city have had special attention paid them by their Parisian colleagues. One item was a banquet in their honour given at the Grand Hotel, and, another, their visit last Saturday to the Pasteur Institute. They arrived there in the afternoon just before nightfall, and were received by M. Pasteur in the vast library, where there is a bust of the Czar. M. Pasteur welcomed them as follows:—"I am profoundly happy to receive you in this house, which belongs a little to the people of Russia. This small corner of France counts numerous friends of your country, and we cannot overlook the assistance given by the Czar in founding the Institute, neither do we forget your countrymen who have come here to be cared for. Also your young medical men who come to work with us are always welcome." While the doctors were visiting the laboratories of the Institute, a large crowd assembled, and when M. Pasteur conducted his guests outside, enthusiastic cries of "Vive la Russie!" "Vive Pasteur!" were heard.

Preparation of Hydrogen.—Mr. John Ball, of the Royal College of Science, has recently observed that, by the addition of a few drops of a solution of cobalt nitrate to the acid and zinc in a hydrogen apparatus, the rate of evolution of hydrogen is enormously accelerated, especially at the beginning of the reaction. The action is the same with either hydrochloric or sulphuric acid, and a couple of drops of solution of cobalt nitrate will suffice for a large quantity of acid. A solution of a nickel salt exerts a similar action. In each case a thin film of the metal is deposited upon the zinc, and the result may be a voltaic couple.

Legal Reports.

THE PRECIPITATED-CHALK TRANSACTIONS.

On Saturday, at the Central Criminal Court, counsel asked that the case against the Levermores might be adjourned till Tuesday. He might inform his Lordship that the defendants would plead guilty.

Mr. Mathews (for the prosecution) raised no objection. He would like, however, to know if it would be necessary for the witnesses to be in attendance.

The Common Serjeant: The case stands adjourned till Tuesday morning. There will be no necessity for witnesses to be here; but defendants must surrender to their bail at five minutes to ten.

Accordingly, at the Court on Tuesday, Augustus Levermore, 40. chemical-merchant, of 8 Lime Street, E.C., and Charles Randolph Levermore, 45. agent, of 649 Old Kent Road, were indicted before the Common Serjeant (Sir Forrest Fulton, Q.C.), that they, on July 23, obtained from Mr. Isidore Magnus and another, by means of false pretences, 71*l.* 3*s.*; obtained by fraud from Mr. Joseph Fuerst, the following sums: 70*l.*, 7*l.* 3*s.* 3*d.*, 4*l.* 8*s.*, 77*l.* 10*s.* 9*d.*, and 75*l.* 19*s.* 4*d.*; and from Messrs. Thomas Tyrer & Co., 71*l.* 15*s.* 4*d.* They were further indicted for having conspired together, and with other persons unknown, to defraud the various persons mentioned. There were four other counts for conspiring to defraud.

Mr. C. Mathews appeared for the prosecution; the prisoners were represented by Mr. J. P. Grain and Mr. Kershaw.

The accused pleaded guilty to the conspiracy, but not guilty to obtaining money by means of false pretences.

Mr. Mathews said perhaps it would be as well for the court to hear what Mr. Grain had to say before he made any observations.

Mr. Grain stated that he was instrueted to represent one of the prisoners, and his friend, Mr. Kershaw, appeared for the other. The facts of the case were peculiar, and it was in consequence of his advice that the accused had pleaded guilty. When he had read the depositions, and had had all the details before him, he felt bound to tell them that they had infringed the criminal law—though they were so near the line (if he might say so) he could arrive at no other conclusion. It appeared that there was an article of commerce, called precipitated chalk, which was obtained from Canterbury. There was a certain amount of legitimate trade carried on with this stuff. The cost was small—perhaps 3*l.* per ton—and the price at which it had been legitimately sold, was 13*l.* 10*s.* per ton. This stuff had been sold, he might say, in considerable quantities to a great number of persons and respectable chemists. It was used for various purposes. The prisoners had adopted, to increase the sale, a system which could not be defended from a commercial point of view, or in his (Mr. Grain's) opinion from a criminal point of view. What they did was as follows: One man took lodgings in a certain name (in one case it was Randolph) and from there sent to several persons who were named in the indictment, asking them to quote prices for this article. They at once wrote to the other prisoner who carried on business in his own name, and he quoted the price—13*l.* 10*s.* per ton—and then the merchants quoted to the other prisoner, who had first communicated with them. The result was that Charles Randolph Levermore gave an order to the merchant for a quantity of precipitated chalk, and the merchant ordered it of Augustus Levermore. Then Charles Randolph Levermore, who went by an adopted name, did not take up the goods. The result was that the merchant having entered into a contract with Augustus Levermore was unable to get rid of the stuff, and had it left on his hands. Having adopted this course, it was his (Mr. Grain's) opinion that they had brought themselves criminally within the law. It was entirely under his advice that the prisoners had pleaded guilty to conspiracy. They had now made restitution to the persons concerned, and there was no one present to complain of being a loser. Under these circumstances, being a peculiar case (he did not think he had ever met with a more peculiar one), and the prisoners being so near the border line—he did not know any other way to express it—he thought perhaps a certain course might be taken. His learned friend (Mr. Mathews) was kind enough to allow him to put his view before the court first, and he had no reason to think he would differ from him.

Mr. Kershaw said he did not think it necessary for him to add anything to Mr. Grain's statement of the case.

Mr. Mathews said he generally confirmed Mr. Grain's view of the case. The defendants had taken a course which stood them in excellent stead on their trial. They had, no doubt, committed fraud. The total amount the prisoners had obtained from various people was something like 447*l.* 19*s.*, and they had now come forward and taken the chalk off the hands of Messrs. Haller, Tyrer, Fuerst, and the other firms, and paid for it. That seemed the most appreciable way of making restitution, though such a course had not been suggested to the prisoners by the prosecution. Perhaps, under the circumstances, his Lordship would think that the prisoners had done all they could to make good the wrong, and take a certain course.

The Common Serjeant: I have no reason not to adopt the course indicated by the learned counsel. At the same time, I must express my concurrence with the views of Mr. Mathews that this is plainly a criminal fraud, and there is not a shadow of doubt about it. Perhaps it is best that the prisoners pleaded guilty. I am always desirous of abstaining, when I can, from sending persons to prison. There is no reason to suppose the accused have before been engaged in criminal practices. I order them to enter into their own recognisances of 100*l.* each to come up for judgment if called upon, and if I had power I should certainly order them to pay the costs of the prosecution.

THE SALE OF FOOD AND DRUGS ACT: A NEW DIFFICULTY.

At Steyning on Monday, Messrs. Kearley & Tonge, proprietors of the International Tea Company, were summoned for selling adulterated lard at their branch stores at Shoreham. A month ago the case was adjourned for the purpose of having the third sample analysed at Somerset House. The Magistrates' Clerk now reported that he had received a letter from Mr. H. Bannister, the Deputy-Principal at the Somerset House Laboratory, dated September 28, stating that owing to the lard having been improperly packed in a paper wrapper, a portion of the more liquid fat had been absorbed by the paper and the original composition of the lard had been thereby altered. Under those circumstances the Somerset House chemists could not furnish the court with a certificate of analysis.

The Police-superintendent said the lard was wrapped in grease-proof paper and covered with brown paper, and the solicitor for the prosecution said it seemed that the authorities at Somerset House had never opened the sample, but, seeing the brown paper outside, they came to the conclusion that it was wrapped in brown paper only. The solicitor for the defence asked that the sample might be returned with directions to open it. He was sure the lard was pure, and not adulterated with 5 per cent. of beef-fat as alleged. It was made in Chicago, and he had a cablegram stating, "We guarantee absolutely pure; no beef-fat." The prosecution claimed, however, that the Bench were bound to adjudicate according to the certificate, unless there was something to show that the certificate was wrong, and in the end a fine of 20*s.* and 13*s.* costs was imposed.

SYMBOLIC.—The professor asked: "What is the composition of silica?" "Silicon, lithium, and calcium," replied the student. Professor: "How do you make that out?" Student: "Why, Si-Li-Ca."

THE NUMBER OF WOMEN-DOCTORS IN RUSSIA has been reckoned at about 700. Dr. Herzenstein has traced the occupations of 409 of these. Many of them (21·27 per cent.) occupy responsible positions in the service of the zemstvos; municipal bodies engage 3·18 per cent.; hospitals and workhouses, 14·42 per cent.; educational establishments, 4·16 per cent.; Government institutions, 0·73 per cent.; and the rest are in factories and works of various sorts, or in private practice. Individual incomes from such sources vary from small sums (200 roubles) up to 2,000 roubles (about 200*l.*) per annum. The incomes of private practitioners are somewhat better.

The Brewers' Exhibition.

ONCE more the Agricultural Hall is alive with those who make their living from the preparation or sale of beverages. One or two large firms who dealt in the sundries trade, have stayed away this year, and have thus made room for more than a dozen others. The fact that the past summer has been a magnificent one for all connected with the mineral-water trade, and this circumstance is reflected in improved exhibits here and there. In the earlier days of the week the attendance was disappointing, but on the whole there has been no falling off in the volume of business transacted.

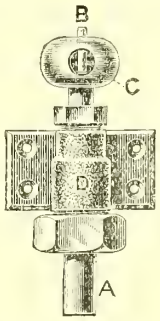
Stevenson & Howell, 95A Southwark Street, E.C., are in their old position, and the booth which they have is an excellent one for business, if one may judge from the smiles of representatives as they received and bade adieu to a continuous stream of callers. "No, we have nothing particularly new on show," said one of these representatives to ours. "We have had a lively time of it this summer. One thing that is not quite old-fashioned yet has gone well—soluble essence of limes. Makes a sort of lime squash, you know, it's awfully refreshing, and some people prefer it to lemonade. How many essences have we? Why, I should say nearer 600 than 500, and ginger and lemon are the favourites." The ginger-ale business, our representative ascertained, remains a very big thing. For example, S. & H. have the "Belfast," "Dublin," "Irish," "Southwark," and "Standard," brands, all differing in composition and flavour, but each popular in different localities. "By the way, we have something quite new. See that," said the courteous representative. This was a cablegram from Messrs. Stevenson & Howell's agents in Chicago, intimating that they have received four awards. They are the only firm in the soluble-essence trade who have received this distinction, and as their exhibit in Chicago is one which is purely educational to Americans, the tribute to them is well-merited.

Dan Rylands (Limited), of Barnsley, &c., occupied three bays in the hall with machinery in motion, glass-ware, and the products of the Standard Essence Company. McEwen's "twins" was the apparatus which attracted most attention. It is the old "Paragon" adapted for working with steam-power. The nature of this machine will be understood when we explain that we saw it working with splits and full-sized bottles, and all that the workman had to do was to feed it with bottles. There are two fillers, of course. These are on the turnover principle, and are directly connected with the aërating part of the apparatus. The filler syrups and does everything automatically. Thus, if there are no bottles in the rack the smooth wheels, which touch the parts that communicate with syrup reservoir and water-cylinder, are thrown out of gear, and the filler revolves without loss of material. While our representative stood watching it, just started, spurt came a dash of water, more than the bottle could hold. "Adjust the supply," said Mr. McEwen, and with a slight turn of a screw-tap, and without stopping the machine, the twin proceeded with its work without spurting. This was an excellent illustration of the adaption of the machine to all circumstances. Another notable point about the filler is that whenever a bottle is filled it is ejected from the filler upon an inclined plane, down which it travels to the box. It is a pretty piece of mechanism, and there are crowds round whenever it is working. This, as we have said, is the chief attraction of the exhibit, but in other respects it is well worth a visit.

W. J. Bush, Faye & Co., of Artillery Lane, E.C., are among the most constant, as well as most prominent, exhibitors at the annual Brewers' Show. This year they have put up for their exhibit a very handsome new structure in dark wood with mirrored panels, within which they show samples of some of the finest essential oils which one could meet with anywhere. Among the new essences which they show are "Football" punch, champagne limejuice, "Hot Tom" bitters, and kola champagne. They also show some very fine concentrated oils of lemon and orange, consisting of the respective active principles of the oils, and possessing a nominal strength of 25 and a real one of 17 times that of the ordinary oils of commerce. Colourings, guaranteed not to fade or deposit, and the popular "French Cream Gum Extract," for producing a head on aërated and other beverages, are likewise prominent features of the exhibit, which, in spite of the early period of the opening day, at which our representative visited it, was already a crowded centre of attraction.

A. Boake, Roberts & Co., of Stratford, have for many years occupied a prominent position at this exhibition, but it is not until this year that they have come within our province. That they do now with an artificial lemon juice—"Citrol"—a liquid 2½ times stronger than natural lemon-juice, and permanently transparent. The firm also exhibit the more popular essences. Their business is principally in caramel and preservatives (metasulphites), and in connection with the latter they also manufacture liquified sulphur-dioxide. We observe that they put up the latter in 20-oz. cylinders for disinfecting purposes. The cylinder is provided with a leaden tube, on nipping which, the gas comes out intermittently until the whole contents are discharged, there being sufficient in one cylinder to disinfect a room 12 feet cube. The great advantage of the disinfectant in this form is that all the risk of fire is avoided. Caramel (solid) is, we have said, one of the firm's principal products. They exhibit an allied substance for use as a "heading." This is viscosoline. It is a colourless sugar, but, strange to say, is unfermentable. "Lupulose" is also shown. It is a viscid fluid, pale yellow and fluorescent, which gives both body and flavour to beer or non-intoxicating ales.

Barnett & Foster, of Niagara Works, Eagle Wharf Road, N., have an exhibit of soda-water apparatus which is undiminished in variety and ingenuity. The extended use of liquefied carbonic-acid gas has created a demand for the "Compact" machines, and we are informed that many hospitals, as well as chemists, are now manufacturing their supplies of waters by aid of these machines. The latest of the "Compact" series is No. 3, which has a productive capacity of 200 dozen bottles a day, if need be, yet it stands in a space not much greater than is taken up by a gas-stove. The machine includes everything—cylinder for aërating, syruper, and filler. An even simpler arrangement than this is available for the chemist in the cylinder apparatus used for the counter-fountains. With suitable attachments this can be utilised for carbonating water, and then connecting it with a filler one can make a dozen or two of potash-water while a customer waits—as quickly, in fact, as an equal number of pills. The scrupulous care exercised by some aërated-water makers is exemplified in the new syphon-nozzle cleaner which Barnett & Foster have introduced. The nozzle is a place where all sorts of filth are apt to lurk, and if it is not cleaned out the whole of the matter is driven into the syphon when it is filled. The cleaner, which



we illustrate, is simple and efficient. The part A is connected with a forced water-supply—the main, by preference. The nozzle is placed over B, and the ball, C, pushed down, whereby a brisk jet of water rinses out the nozzle. Since the

premises of the firm were attacked by fire they have rebuilt and have kept in view the requirements of the essence department. For this they now have a special laboratory. and this department is receiving their close attention.

Loft's Patent Check-till Company (Limited), of Cambridge, in addition to exhibiting the tills which are so familiar to druggists, have several bottle-washing and rinsing machines in operation. These machines consist of a rack which revolves automatically whenever it is fed with bottles. During the revolution the bottles pass through a soda-solution, then the attendant puts each bottle on the brush and finally upon the rinsing-board, where a jet of pure water removes the last traces of objectionable matter. The machine is simple, and an excellent worker.

Thomas Hill, of Hull, has worked in a new brush in his bottle-washing machines In appearance the brush does not seem to differ from an ordinary bottle-brush, but the wire which secures the tuft of hair at the extreme end is twisted round a groove, so that there is no scratching with this wire as is sometimes the case. Mr. Hill has a good general exhibit.

Le Grand & Sutcliff, 125 Bunhill Row, E.C., as makers of pumps and sinkers of wells, are again renewing acquaintance with their brewer friends, to whom they are important allies in finding subterranean reservoirs of pure water. The firm have assisted some noted chemical firms in the same way.

Bratby & Hinchliffe (Limited), Manchester, and 146 Minories, E.C., have an exceptional number of novelties this year, especially in steam filling machines. The "Beacon" is very similar to the hand turnover, the bottle-holder being divided into two recesses, so that the workman can be charging one while the bottle in the other is being filled. The "Standard" is on the same principle, but in this case two bottles are always being filled. These machines fill respectively 80 and 120 dozen bottles per hour. Since last year, when they were first brought before the trade, they have been strengthened in parts, and work with great smoothness. We observed that the firm have now adopted a glass-lining to the "Alaska spray" aërating cylinder. The system on which this apparatus works appears to give the perfection of saturation, for the central spindle is made up of a series of discs through which water and CO_2 come out in fine spray towards the edge of the cylinder. We referred a few weeks ago to the gas and water regulators which Bratby & Hinchliffe have recently perfected. Some years ago they introduced a water-regulator, and now an extension of the principle gives us the double function. The apparatus is essentially a balance, consisting of a balance weight, and controlling globe, the latter being connected by rubber pipes to unions to top and bottom of the aërating cylinder. The apparatus being fixed on the same level as the cylinder when the water rises, it naturally finds an equal level in the globe. Directly the water has reached the desired height (which is regulated by the balance-weight) the globe drops and allows the gas to pass through the valve in the body, back to the pump, which effectually prevents its drawing any further supply of either water or gas. Immediately the water is drawn from the cylinder it falls in the globe in a like degree, which causes it to rise, closing the valve, and bringing the pump into full action again. The regulator is attachable to any apparatus, and is a beautiful piece of workmanship. The firm are also showing Fletcher's labelling-machine, which does its work expeditiously and cleanly. There are many other interesting things in the exhibit.

The Carbonic-acid Gas Company, of Clapton, report that the use of liquefied CO_2 for making aërated waters is progressing rapidly. They make the gas directly from coke, and have a special system of purification which ensures that the liquid consists of CO_2 and nothing else. In proof of this, they have exposed daily a large dishful of the snow-white crystals of the anhydride, and, on blowing into this dish, a cloud of the acid arises which has not the faintest trace of odour. The company are erecting works in Manchester, and expect to do the same in other large towns, so as to get as near as possible to consumers.

W. Meadowcroft & Son (Limited), of Blackburn, have made considerable developments in their business since it was converted into a company and more capital brought into it. There is evidence of that in the improved position which they have secured in the hall, for they are now in the centre instead of below the gallery. Here they have erected very handsome showcases and office, made of American walnut, carved, and glazed with bevelled glass. The front of this case is filled with samples of soluble essences and other preparations used in making aërated beverages, which remain the staple trade of the firm, although lately they have branched out into machinery. Amongst the articles which are popular just now, and have been all summer, are hop-ale and ginger-beer essences, for use in aërated beverages, but equally applicable for the brewed products. In machinery, which is now manufactured in the firm's own factory at Blackburn, there is a new hand-turnover "filler," with the ingenious automatic syrup and water regulators which we have in former years commented upon. This principle is also being applied to a cork-bottling machine, the first form of which is shown this week, but still in the rough, although the idea and action are there. The notable thing about this latter machine is that, in addition to the syrup and water being cut off when the machine has not had its bottle feed, the corking part of it is also thrown out of gear, so that the cork is not compressed and thereby wasted.

Guéret Frères, the Parisian syphon-makers, exhibit their goods through Merchant & Co., of Southport. There is no novelty to record this year.

Chapman & Son, of Birkenhead, also exhibit syphons, which are Vienna-made, amidst other glass goods.

Thomas Smith & Co., of the Canal Potteries, have a nice exhibit of chemical stoneware, including such things as nitric acid jars and taps. Ginger-beer bottles have been a heavy item with them lately, our representative was informed; indeed from the number of bottles made we can judge that this beverage is rapidly becoming the most popular of all non-intoxicants, and it is not confined to the working-classes.

Durafort et Fils are exhibiting syphons and seltzogenes.

Kop's Brewery's exhibit attracted our representative's attention as he was passing it, for it is a big one, and the non-intoxicating beer has become a settled thing. In conversation with the manager, he was informed that the brewery is in new hands entirely, and with energetic work the products have taken a hold which they are likely to keep. It appears, too, that many chemists throughout the country have been doing a good thing in the ale. One in a Kentish town, for example, sold 200 dozen a week during the summer months, and that represents 5*l.* profit. Some who do a bottling trade get the ale in cask. "It is quite a mistake," said the Kop man, "to suppose that it's teetotalers who drink Kop's ale; it's the hard drinkers who consume most of it. When they go 'off the drink,' they find that Kop gives them the taste of their usual tipple." This is a view of the matter which the uninitiated would scarcely imagine without aid.

F. King & Co. (Limited), Camomile Street, E.C., whose desiccated soups we referred to a few weeks ago, have a good exhibit of them in the hall.

C. H. Glover & Co., Ormside Street, Old Kent Road, make a splendid display of boxes, and a good idea of the extent to which they are employed is given in the fact that Kop's Brewery have bought 75,000 of them during this year. These are the "crescent steel" wire-binding van boxes, to hold a dozen or more. The peculiarity of these is that a thick steel wire is passed through the wood right round the box, thus securing the edge-joints more effectually than is possible otherwise. The boxes have a splendid finish. Samples of parcel-post, lozenge and other boxes are exhibited, but the mineral water boxes and "Veto" jar crates form the principal part of the show.

The Rosbach Water Company, of 4 Sussex Place, Leadenhall Street, show their natural sparkling table water at a smallish stand, and without much ostentation. The "Franz Josef" and "Levico" waters, which are introduced by the same company, are not shown at the stand, nor is "Kola Champagne," of which, however, a supply is kept, and may be sampled by the friends of the firm, within the innermost recesses of the stand. So, at least, our representative was assured.

Johannis Company (Limited), of 25 Regent Street, S.W., prominently display their "King of Table Waters." The Johannis show-cards are tasteful, and a neatly got-up pamphlet, reciting the adventures of a "traveller in search

of a pleasant and wholesome beverage," with a learned-looking exordium and a peroration devoted to the praises of the "Johannis," is distributed with profuse liberality.

Hassall & Co., of Marshgate Chemical-works, Stratford, E., now exhibit their phospho-citric acid in a new booth. They report unprecedented trade during the past summer, and night and day shifts to keep up with it. There is always a curiosity to be seen in their exhibit, and this year it is a few bottles of lemonade, made eighteen years ago, with the phospho-citric as the acidifier. The contents have partially leaked out, but what remains is clear, yet the outside of two of the bottles has a coating of *Penicillium glaucum*.

The Silicated Carbon Filter Company, Church Road, Battersea, are showing specimens of most of their filters, and they include the new table-filter, in which we have triple-filtration. The water first passes through asbestos, then through loose charcoal, and finally through the company's patent block. Highly-efficient filtration, and practical destruction of micro-organic life and products, are in this way ensured.

The Sanitas Company (Limited), of Bethnal Green, N., come to the Brewers' Exhibition for the first time with a full line of their manufactures. We noted with interest that they recommend brewers to use Kingzett's sulphur fumigating candles, for the purification of their vats—*i.e.*, to destroy, in the same way, troublesome ferments. Kingzett's patent peroxide of hydrogen is recommended as an antiseptic for the preservation of beer. This is interesting, for after being doubtfully regarded as an antiseptic (although Mr. Kingzett has resolutely maintained its efficacy), attention has been forcibly drawn to it by Dr. Richardson, and now a German authority, Traugott, has published the results of observations, from which it would appear that it is a more desirable and reliable antiseptic than mercuric chloride and carbolic acid. This counts one for "Sanitas."

Brand & Co., of Mayfair Works, exhibit most of their meat specialities, giving prominence, however, to those which are suitable for bar trade.

Gridley & Co., of Bishopsgate Avenue, E.C., have a very good exhibit of isinglasses. We were interested in two Brazil bladders, which are expanded so as to show the conformation. This differs much from the Russian, which is that of a balloon, while the Brazil resembles a root such as aconite. They are very pretty specimens.

Bovril (Limited), 30 Farringdon Street, have made their space into a pavilion, which is gaily decorated and hung with lace curtains, so that it is an exceedingly attractive spot. At two corners are neat little boudoirs, and at the others handsome show-cases containing examples of all their specialities. For the drug-trade the company are specially recommending "Invalid bovril." It is a more concentrated preparation than "bovril," and is not seasoned—in fact, it is altogether a highly acceptable sick-room staple. Bovril wine is the most distinctive-looking meat-wine we have seen. Amongst the latest novelties of the company are wild-cherry sauce and Kudos cocoa, both of which have met with a favourable reception.

James Long, Eastcheap, exhibits scientific instruments for the use of brewers, and these include several good copper stills.

Coates & Everett called our attention to "Furline," a new preparation which they have introduced for removing as well as preventing lime incrustation in water boilers and pipes. They show a domestic hot-water pipe, 1½ inch diameter, which is almost completely filled up with calcium and magnesium carbonates, yet the "Furline" is capable of removing an incrustation like this.

J. W. Dobson is showing soda-water bottles, amongst them a "fourway Codd," in which the water can be poured out in any position.

There is a fine display of thermometers, hydrometers, saccharometers, and other scientific instruments upon the stand of Mr. Jas. J. Hicks, who has an excellent position facing the principal entrance. When our representative called Mr. Hicks had no novelties to show yet, but he told us that he expected to be able in two or three days to show an "electric thermometer," which had not been previously exhibited anywhere.

Armitage & Ibbetson's stand in a corner of the main hall, close to the entrance from Upper Street, presents one of the most attractive views of the show, and is an object of general and well-deserved admiration. The firm are chromo-lithographic printers, who, judging by the variety of specimens they show, make a speciality of pharmaceutical work. Some of their show-cards are models of colouration and design. The firm are willing, not only to execute the card, but also to supply the idea and the sketches for customers whose imagination is of the sluggish order; "and we are particularly proud," said the gentleman in charge of the exhibit, "of the fact that there is not a bit of foreign work in the whole of this show. Everything you see here has been produced in England, and by British labour."

Sir Joseph Causton & Sons have a fine exhibit of iron show-tablets and lithographed show-cards. Their enamelled iron plates, printed in colours, of which they show a considerable variety, are practically indestructible. One of the finest specimens of lithographic printing which we have seen for a long time is a picture at this stand of the Bute Docks at Cardiff. The artist's sketch for this picture took six weeks to complete, and a year was spent in reproducing this on the stone.

In the stand of H. J. West & Co., coppersmiths and engineers, the most prominent object is a large dome brewing-copper for boiling under pressure. It has been made for a firm in the Transvaal, and, by the time it reaches its destination by ox-waggon, is likely to cost a great deal more than the price of about 150*l.*, at which it is now quoted by the makers, especially as the huge apparatus, being firmly riveted together, cannot be taken to pieces. The boiler has a capacity of 900 gallons, and although it strikes the outsider as a big piece of work, the firm seem to consider it one of quite secondary importance. They made one last year, they told us, quite double the size of this one. West & Co. also manufacture stills, pressing machines, mash-tuns, and other classes of brass and copper work.

The principal article shown by the Invicta Works (Limited) is the "Perfection" box board-printing machine, by the aid of which a single operator is able to print a name and address of any design and in any colour upon about 6,000 box-boards per hour. The boards are placed in a pile upon the table of the machine, and drawn automatically through the rollers, the impression being stamped into the wood as strongly as if it were branded in. The company claim that their machines are in use among the chief soap, starch, mustard, and chocolate makers in the world.

J. W. Hart & Co., at a stand of moderate size, show an interesting collection of isinglass of various descriptions, as well as a specimen of their "Burton" machine for making finings, which enables a man to reduce into infinitesimal particles and strain 50 to 100 gallons per hour of prepared pulp of isinglass or other substances.

Crawford & Co.'s only speciality is their patent carbon enamel for curing musty casks by coating the inside of the vessel with the preparation, which, it is claimed, will not only not injure, but actually improve, the quality of the beer and other liquids contained in the vessels. A coating, we were informed, will last three or four years, and a gallon of the preparation will treat from eight to ten barrels. It is a good idea of Messrs. Crawford to give away at their stand small squares of wood painted with the substance.

Cannington, Shaw & Co. (Limited) show a very fair collection of glass-work—jars, oil-bottles, and other ware of that kind; they are also makers of jars for Leclanché batteries.

The representative of the old-established firm of Joseph Bourne & Son, pottery and stoneware manufacturers, had much to say concerning screw-necked bottles, of which the firm are prominent manufacturers, and for which the demand, in spite of their greater expensiveness than corked bottles, is constantly increasing. Do the screws add much to the cost? Well, from 7*s.* to 12*s.* per gross, but customers don't weigh that against the advantages which the screw-neck offers. The demand for the old-fashioned stone bottles for brewed ginger-beer has been unprecedented this season, and the custom is now almost becoming universal to have the name or trade-mark of the bottler printed upon the bottle and afterwards glazed over, which looks far prettier than the branding or labelling of the bottle. Telegraphic insulators, battery-jars, and furniture-cream also form parts of the firm's manufacture.

C. W. Field, importer and distiller of essential oils, has a very handsome exhibit indeed, at which are shown the usual

soluble fruit-essences, headings, and essential oils for mineral-water and cordial makers There are also neat samples of some of the raw materials used in the industry, such as capsicums, Jamaica ginger, glucose, chilies, and liquoriee.

Another prominent and handsome stand in yellow wood is that of Duckworth & Co., who are bringing out a novelty in the form of a new winter drink, yclept "ginger-fizz." As an inducement to purchasers of the essence of this beverage, they give 6,000 labels with the first Winchester of the preparation ordered by each customer.

Clayton & Jowett have a bright and roomy stand, with pleuty of colour in it. The walls are hung with polychromatic show-cards of "Zolakone," a new aërated beverage, which appears to be beginning to enjoy considerable popularity, especially in Australia. There is also a calendar embellished with presentments of both members of the house, and a good deal of literature concerning the firm's products. Kola stout and hop stout extracts have also been recently added to the preparations of the firm.

The Fulham Pottery and Cheavin Filter Company (Limited) are manufacturers of stoneware bottles for druggists and drysalters, as well as of the filters from which the concern takes its name. At this stand also may be seen the "Compactum" drum-shaped spirit-jar with pateut tap, which makes it possible to empty the vessel completely without tilting. The action of turning on the tap, moreover, opens a vent, allowing the liquor to flow; the vent is closed automatically when the tap is turned off, and the liquor eannot, therefore, become flat.

E. Herring, Giles & Co. are rather firm in the isinglass business. They show a fine assortment of their fish-bladders, among which our attention was specially attracted by a large specimen of very fine Russian sheet isinglass. Chemicals and flavourings for brewers' use are also among the firm's specialities.

Whalley's Sanitary Fluid and Powder are new claimants for a place among the disinfectants of commerce. The Whalley preparations, which are now being put on the market, are sold for the fluid in bottles and in bulk from 1 up to 40 gallons, and for the powder in perforated tins and boxes. At the same stand are D. Harper & Co , who bring out a large variety of advertising novelties, among which a metal screw pencil-case in the body of which the small linen scroll bearing an inch measure and an advertisement is fitted struck us as very ingenious. The seroll may be pulled out like a tape measure and returns to its place by spring action when the hand is withdrawn from it.

Wilson, Salamon & Co. have a large and hospitable stand, at which they dispense lemonade and other aërated waters sweetened with saccharin, with big cigars and whiskies thrown in. They really exhibit nothing at all except a vase of saccharin, which they appear to have sent for as an afterthought when it occurred to them that it would be well to give some evidence of their manufacturing as well as of their entertaining powers. Still, unobtrusive as it is at the exhibit, saccharin appears to be making headway rapidly in commercial use. The price, by the way, which was 63*s*. per lb. when the article was first introduced, has gradually been reduced to 42*s*. per lb , and even less for quantities.

Barrett, Tagant & Pochin have a small but interesting stand at which they show specimens of caramels and cane-sugars of their manufacture. The yellow and brown sugars exhibited are much in favour among druggists and mineral-water dealers.

The Brewers' Cereal and Chemical Company also make a speciality of caramels, as well as of "heading" powder, for which they hold a pateut.

An excellent pottery exhibit is that of James Stiff & Sons, where our representative's attention was called to some fine specimens of artistic printing in various colours upon the ware. The printing is done from a plate, and is afterwards glazed over, the cost being almost the same as that of the old system of impressing the names. The printing system, though it has been practised in Scotland for some time, has only recently come southwards. Where an order for fifty gross of bottles is given no charge is made for the copper plate.

The Finsbury Distillery Company make a leading feature of Stone's British wines in bottles and casks, as well as of draught orange and ginger wines, and of quinine-wine.

Maignen's "Filtre Rapide" and Anti-calcaire Co. (Limited) have a large exhibit in the centre of the great hall of water-filters, from the plain earthenware to the rich hand-painted kind.

The Riley Manufacturing Company (Lambeth) have a fine working installation of soda-water machinery, but we observed no striking novelty beyond what we described last year.

Wm. Hay occupies his old position at the west end of the hall, but Mr. Hay was not there himself during the early part of the week, which fact accounts for our being unable to get at the nature of his exhibit.

"Coca" is the fancy name for E. Clark & Co 's "optimus" coffee extracts, and "consolidated" coffee, which visitors are invited to taste, and for which there appears to be a constant demand at the stand, notwithstanding the fact that the place is surrounded by establishments where the whisky-cup overflows from morning till night.

In the Gallery

there is a catering division once more. Here are gathered together all who have failed to get space on the ground floor, but it passes the wit of man to fathom what mangles, sifting-machines, and miscellaneous articles have to do with catering. Still, we have seldom been through a more interesting collection of goods than is shown in the gallery this year. The following notes take in most that are of interest to the drug-trade.

A "change-till," which gives out the equivalent in change of any coin put in, is shown by The Rapid Change Till Company. Thus, if 1*s*. is inserted in the aperture, on depressing a lever the amount is registered and indicated, and 6*d*. in silver and five pennies and two halfpennies are ejected into the bowls. If the purchase should be, say, 3*d*., that amount is placed in a glass receptacle marked "Coppers," and the remaining 9*d*. is given to the customer. Thieves have a bad time of it nowadays.

Beaufoy & Co., of Lambeth, have a nice little show of their vinegars, British wines, and aërated waters.

We noticed a good thing in floor-coverings, very suitable we should think for chemists' shops. This is inlaid tile linoleum, which is put down like tiles, bit by bit, according to the colours of the pieces The material wears of the same colour as the surface, and is soft and warm.

The Continental Bottle Company show a large collection of wine and other bottles, including white flints and syphons. These are German made, and we are told that the white flint glass is made in "tanks," an achievement arrived at without sacrifice of colour.

Ward Registering Cashier Syndicate (Limited) are attracting great crowds round "Ward's Royal Cashier," one of the most important points about this till being that the coins taken in the last two transactions are kept in view, so that there can be no dispute. Gold, silver, and copper coins fall into separate compartments, and the till is a perfect checker and register.

The French Hygienic Society exhibit Rolland's coca liqueur and other coca preparations.

H. Young & Co. show in operation a new rapid mixer for liquids or semi-liquids, irrespective of their difference in specific gravity. It is adaptable to jacketted pans, and can be made of glass, stoneware, or any other material.

Spong & Co., of Holborn, exhibit their portable shampooing apparatus, and a wonderful collection of advertising material for attracting the attention of people to windows.

E. F. Langdale, of Hatton Garden, has a fine display of essential oils and concentrated essences in an enclosed booth, the exhibit being, of course, made up of those articles most in request by mineral water and liqueur makers. They also show Delcroix & Co.'s choice perfumery.

In the dusk of Monday evening, before the gases were lighted, the brightest and warmest spot in the gallery was where S. Clark & Co., Park Street, N., had their exhibit of syphon gas-stoves. These were all aglow, and the effect was as charming as the atmosphere was pleasurable. A handsome new stove, the "Cabinet," is shown for the first time, which will meet the ideas of chemists as an ornament for their shops and an effective heater. The style is highly

artistic yet quiet. The stove is made in enamel with nickel mounts, and for shop or hall it is as attractive, clean, and effective as one could wish. Chemists in parts where coal-gas is not available may note that the firm have adapted the principle of their gas-stoves to oil heating-stoves. This principle ensures the condensation of all volatile matters which give a bad smell, while smoke is at the same time prevented.

"Semper Dulcis," the ever-sweet preservative, which James Doulton & Co. (Limited), Crayford Mills, Stratford, E., have made famous, is exhibited in close proximity, and was backed by other chemical manufactures and colourings.

Johnson & Jorgensen, 5 Savage Gardens, E.C., have placed on exhibition a splendid series of bottles specially suited to the wants of the trades participating in this Exhibition. It is noteworthy that all the round bottles which the firm make are "turned," this method ensuring a high degree of strength without sacrificing any point of good appearance in the metal.

The National Cash-register Till Company called the attention of our representative to an improvement on the register of their tills. This is a total-adder, which shows the exact sum recorded in sales, any fresh amount being included as soon as the lever is pressed home.

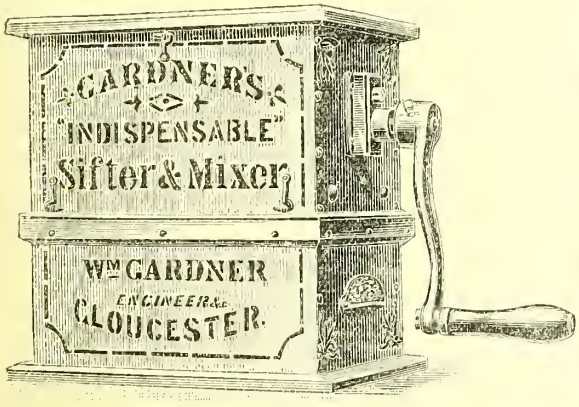
Martin Perls & Co. exhibit essential oils and vegetable colouring-matters for aërated waters.

We noticed at the stand of The Glass-lined Syphon Company (Limited), 183a St. John Street Road, E.C., some very pretty syphons. These are made in Paris, and all the metal parts are lined with glass. Chemists who would like to see these can get a sample sent carriage paid for 2*s.* 6*d.*

The Berkefield Filter Company (Limited) exhibit some of their most powerful filters, and give prominence to the ice-cooling filter, for use on bars.

The Rosmarine Manufacturing Company again made the south-east corner of the gallery odorous with "petal-dust."

William Gardner, of Gloucester, shows a large collection of his sifters and mixers. The latest of them is figured here.

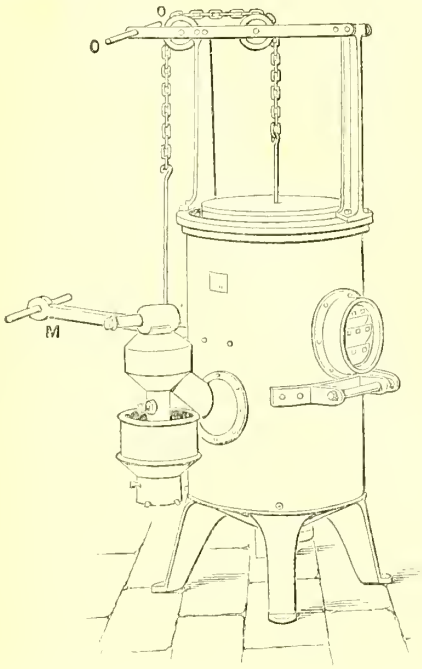


This has the brusher on three revolving arms which press against the sieve and do their work very rapidly. The sieve, &c., lift off the receiving box. All the larger mixers for use with power are now geared, so that they work with greater ease and with no diminution of rapidity.

Jeyes' Sanitary Compounds Company (Limited), amongst a general exhibit of their manufactures, include a new toilet soap—"Senolia"—which contains the fluid completely hidden by a delicate scent. They are also making a feature of household sanitary soap in 1-lb. bars, to retail at 4*d.*

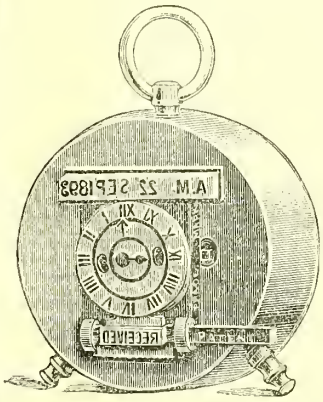
Favarger & Co., Midland Road, N.W., have brought together a fine collection of syphons and seltzogenes.

Tilghman's Patent Sand-blast Company (Limited) have on show Mathewson's patent sand-blast apparatus, which is used by mineral-water makers for engraving names on bottles, &c. It is not a large apparatus and is shown in figure here. All that is required is to put a steel stencil-plate over the bottle, place it in the groove to the right of M, then pull down the handle M, and we find the lettering permanently engraved. From 500 to 1,500 impressions can



be made per hour. It is as neat a thing and as simple in operation as one could imagine.

A clever thing in the way of time-stamps is shown by the Mechanical Time-stamp Company (Limited). This is a series of rubber circles attached to the movements of a small clock or watch, so that whenever the stamp is used the correct time is printed as shown in the figures. The



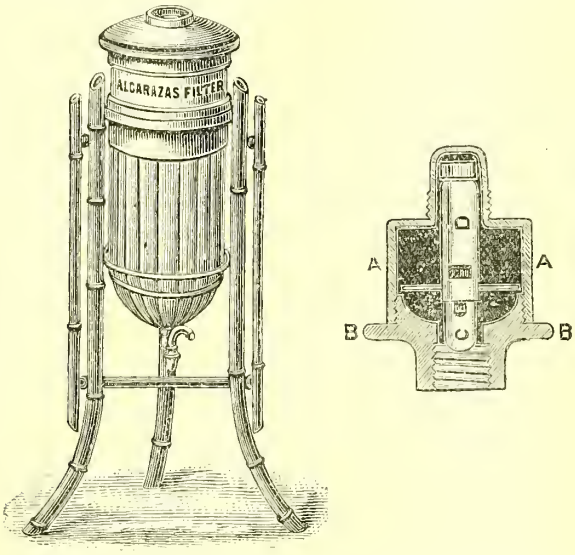
stamp is also made separately, but attached by wire cords to a clock-movement, whereby the circles again move silently but surely. It should be a useful thing in offices, and for marking the despatch of medicines.

In the "Arcade" leading from the hall to the pleasant verdure of Islington Green

The Economic Soup & Food Company have pitched their tent, and offer a tempting selection of chutneys, "Liebig's" extract of meat, potted meat, and compressed soups. The latter, it is said, were specially selected by Dr. Nansen, for use on his Arctic expedition.

Close by the soups, the interesting exhibit of the Deimel Light Company (Limited) claims attention. This firm show the Alcarazas filter (Roch-Brault's patent), which works on a well-known Pasteurian principle, and is manufactured of alcarazas clay, evenly ground in order to secure a definite and constant porosity all through the apparatus. When the inner surface of the filtering material begins to show signs of

dirt, the cup should be plunged in boiling water, and then dried over a gas flame. The "spirit gas" boiling stove, shown by the same firm, is an ingenious little contrivance, combining extreme economy of spirit with the generation of considerable heat. The spirit is poured into the container by pouring it over the cotton wick, after which the burner is



replaced, and the small residue of spirit which has collected in the outer cup is ignited. The flame cannot enter into contact with the spirit itself, but burns the gas generated from it, as well as the atmospheric oxygen, which exists in the vicinity of that vapour. By shaking the container a few drops of the spirit, sufficient to communicate the flame to the gas, can always be shaken out into the cup.

The chief speciality of the Manchester Chemical Company is liquid-tartaric acid, which is recommended for the acidulation of aërated waters in the place of the powdered or crystalline drug. It is claimed that this liquid acid, which is about 10 per cent. lower in price than the ordinary commercial article, is equally effective, weight for weight, as the latter substance.

Here also we noticed a clever measuring tap-arrangement for spirits, oils, &c. It is called Lewis's Rapid Filler, and consists of a glass cylinder of the required capacity which is connected with the open tap. It is always full, but only discharges its contents when a bottle-neck presses up the exit-tube.

THE COOKERY AND FOOD EXHIBITION.

The seventh annual exhibition of the Universal Cookery and Food Association is opened till the end of this week at the Portman Rooms, Baker Street. It seems to be attracting a number of visitors. There are numerous attractions, and a large number of prizes, consisting of gold and silver medals, books, &c., are to be distributed among competitors. The most interesting of the competitions are those in which children from eleven to fourteen years of age exhibit their skill as cooks. In each round six of them come forward and draw lots for the dishes they have to produce. These may be soups, fish, meat, puddings, cakes, or vegetables. There are other competitions for soldiers and sailors, illustrating the cooking in the army and navy, and also lecture competitions for ladies who have taken diplomas in recognised schools of cookery. In other parts of the Exhibition tables laid out for dinners and suppers and elegantly-cooked dishes in great variety are to be seen.

Among the trade exhibits we noticed a very bold display by the Chemists' Aërated and Mineral-waters Association (Limited), who, we are informed, have taken a gold medal at this Exhibition.

Messrs. H. T. Rowntree & Co. (Limited), of York, have one of the largest displays, and, in addition to their "Elect" cocoa, attract much attention by their varieties of chocolate-creams and nougats. They are making a special feature of 7-lb. blocks of chocolate, ready for use in confectionery. This is called "covering" chocolate, and only needs to be warmed before use.

Messrs. Armour & Co. show their extract of beef and peptonising-tablets. Mr. E. F. Langdale, of Hatton Garden, has a case of his flavouring-essences and colours. Messrs. Tomlinson & Hayward, of Lincoln, show gravy-browning. Bovril (Limited) show a variety of their popular concentrated foods; and the Rizine Food Company offer prizes for and show specimens of products made with their speciality. Some very handsome syphons and seltzogenes are exhibited by the Glass-lined Syphon Company.

Trade Notes.

Messrs. Jahn & Berger, 19 Laurence Pountney Lane, have been appointed sole agents for the United Kingdom for the perfumes, &c., manufactured by Messrs. Hugues Ainé, of Grasse.

Messrs. G. & G. Stern, the makers of pepsalia and pumiline specialities, inform us that they have perfected a scheme of anti-cutting applicable to their goods, and particulars are to be published next week.

Messrs. Stevenson & Howell, of Southwark Street, E C. have received a cablegram from their Chicago agents intimating that they have received four awards from the World's Fair judges, for their exhibits of essential oils, soluble essences, soluble vegetable-colours, and special preparations.

We noticed among novelties last week some tin ointment-boxes. We regret to find that in consequence of a misunderstanding the price of these was given in our paragraph erroneously. The price of these boxes is very low, but they are not quite so cheap as our paragraph made them appear. The actual price can be ascertained from any sundries house.

Messrs. Shirley Bros., 105 Whitecross Street, E.C., have brought out another new menthol-cone in the pretty pink celluloid boxes that we referred to some time ago. On this occasion, however, the menthol is secured in the lid, or rather the flat part of the container, and the cover is nicely rounded and pointed. It is such a good chemist and druggists' article that they call it the No. 42. There are two sizes—6*d.* and 1*s.* Messrs. Shirley inform us that there are 1*d.* and 2*d.* menthols in the market just now which are adulterated, and which have been offered as Shirley's. We are not told what they are adulterated with, but evaporation of a few grains from the sample will, no doubt, leave a residue, and any menthol-cone that does that is liable to medicine-stamp duty. It is sufficient to heat the menthol on a piece of metal of any kind.

Gazette.

PARTNERSHIPS DISSOLVED.

Pemberton, T. J., and Pemberton, A. C., under the style of Thomas J. Pemberton & Co., Dunster House, Mincing Lane, E.C., colonial brokers.

Wardle, W. S., and Clowes, R., under the style of William Stephens Wardle & Co., Brixton Road, S.W., aërated-water manufacturers.

THE BANKRUPTCY ACTS, 1883 and 1890.

Receiving Order.

Scott, Edward Henry, Anerley Road, Anerley, S.E., veterinary surgeon.

The following Amended Notice is substituted for that published in the *London Gazette* of October 13:—

Lofthouse, Charles (trading as C. Lofthouse), Sheffield, mineral-water manufacturer and herbalist.

Order made on Application for Discharge.

Poulton, Charles, Ipswich, mineral-water manufacturer—bankrupt to be discharged as from November 10, 1893.

Personalities.

Mr. O. Isgold Jones, chemist and druggist, of Llanrwst, has been appointed a Justice of the Peace for the county of Denbigh.

Mr. G. T. Archibald, chemist and druggist, Station Road, Workington, is a candidate for municipal honours in St. Michael's Ward.

Mr. W. Butterfield, chemist, of Blackburn, offers himself as a candidate for the St. Luke's Ward of that town. His address is of an original and quaint character.

Mr. W. Lloyd, chemist, has been nominated for election on the Carmarthen Town Council. Mr. C. W. Cossens, chemist, has also been nominated for election on the Brecon Corporation.

Fröken Louisa Hommarström, a Swedish lady, has commenced business at Kopparberg, the centre of the Swedish mining industry, as an analytical chemist. Fröken Hommarström studied under Professor Cronquist in Stockholm, and for several years held a responsible position as analytical chemist at some large ironworks.

Mrs. Ida Hall Roby, the President of the Women's Pharmaceutical Association of Illinois, and Chairman of the Woman's Congress on Pharmacy, is, as we have previously reported, in business in Chicago, but she informs us that she

is neither the wife nor widow of a pharmacist. When she was obliged to earn her own living she worked for one firm five years, and has been in business for herself six years. She graduated from the Illinois College of Pharmacy, a department of the North-Western University, in 1889.

Mr. Williams, who has started on an expedition in Mashonaland, has taken with him medical supplies in the form of "tabloids." Dr. William Murrell was his adviser in the matter. Messrs. Burroughs, Wellcome & Co. inform us that the assortment is similar to what they always supply in Congo Chests to the British South African Company.

A testimonial is being promoted to Mr. George Chaloner, F.C.S., who has lately resigned the position of lecturer on chemistry at the Birkbeck Institution, which he held for a quarter of a century. Sympathisers with this object are requested to attend a meeting at the office of Mr. E. G. Clayton, 43 and 44 Holborn Viaduct, E.C., at 7 p.m. on Tuesday, October 31, or to communicate with that gentleman or with Mr. H. Trewby, Radnor House, Hornsey.

Business Changes

Mr. W. C. Richardson, of Central Beach, Blackpool, is having his shop-front rebuilt in the Renaissance style with Ruabon terra-cotta and Accrington brick.

Messrs. Napoleon Price & Co. (Limited), perfumers, have enlarged their premises at 17 Cumming Street, Pentonville, N., and have removed their offices to that address.

Mr. Coleby, chemist, St. Leonard's Road, Poplar, E., has purchased the chemist's business of Mr. Miller, The Village, Blackheath, S.E.

Mr. T. Bromwich, chemist, late of Woolwich, New Kent Road, and Shepherdess Walk, has purchased the drug-stores situated at 77 High Street, Croydon.

Messrs. Targett & Wiseman, chemists and druggists, of Weymouth, having dissolved partnership, the business will in future be carried on under the same title by Mr. E. H. Wiseman.

Mr. Wm. Payne, late of Chesham, has opened a new pharmacy, to be known as "The Crescent Pharmacy," 15A Highbury Place, N. The establishment has been fitted in first-class style by the old-established firm of Philip Josephs, of Old Street, Goswell Road, E.C.

Bankruptcies and Failures.

Re J. Hunter Watts, 39 Seething Lane, E.C., trading as J. Hunter Watts & Co., Chemists' Merchant.

This bankrupt attended last Tuesday's sitting of the London Bankruptcy Court, before Mr. Registrar Linklater, and applied to pass his public examination upon accounts showing debts 437*l.* 19*s.* 1*d.*, and assets valued at sufficient to provide a surplus of 17*l.* 0*s.* 11*d.*

In reply to Mr. Wildy, Official Receiver, he stated that he was a chemists' merchant and agent, dealing in chemicals and colours. In 1889 he was adjudged bankrupt, with debts 1,411*l.*, contracted during a partnership trading. He had no separate assets, and he had not yet applied for an order of discharge from those proceedings. Since that failure he had carried on business at Seething Lane, and, having no capital of his own, he had to a certain extent been financed by his wife. The style was J. Hunter Watts & Co., but there was no partner in the business. The petitioning creditors' debt of 117*l.* 12*s.* 4*d.* was in connection with a transaction in shares. He contracted to buy certain mining shares from them, but when he tendered the purchase-money, they were unable to deliver the shares, and he had to purchase them elsewhere at a higher price. The stockbrokers subsequently called upon him to take up the shares, and on his refusing to do so, they instituted legal proceedings and obtained a judgment against him. Leave was granted him to appeal, but he was unable to do so through lack of funds. To that transaction entirely he ascribed his failure. His business recently had been more as an agent than merchant, he having acted for foreign houses, and sold their goods on commission. The income had averaged about 400*l.* per annum, and his expenditure had not exceeded that amount. The examination was ordered to be concluded.

Re Thomas Grunett, 107 Parliament Street, Burnley, Chemist and Druggist.

At Burnley Bankruptcy Court, on October 19, before M-Registrar Hartley, this debtor appeared for public examinas tion. The liabilities are returned at 111*l.*, and the assetr show a surplus of 18*l.* Answeriug the Official Receiver, the debtor stated that in 1884 he filed a petition in the Brighton Court, his liabilities at the time being about 1,200*l.* He commenced business in Burnley five years ago, and he attributed his failure to money advanced being suddenly called in, and to his losing money by opening a branch shop in Oxford Road. The examination was closed.

KINGZETT'S PATENT
SULPHUR
FUMIGATING CANDLES
ARE FAR AHEAD OF ALL OTHERS.
TRADE TERMS:—
6d. candles ... ... 3/10 per doz. net.
1s. „ (water jacketed)... ... 6/10 „
They are lighted with the greatest ease, and burn steadily and thoroughly, ensuring more secure Disinfection than any others.

THE SANITAS CO., LIM., BETHNAL GREEN, E.

ELLIS'S
TABLE
WATERS
Sole Address: R. ELLIS & SON, RUTHIN, NORTH WALES
London Agents: W. BEST & SONS, Henrietta Street, Cavendish Square.

What's good for
BODILY PAIN?
DAY'S OIL OF THE NIGHT

WRIGHT LAYMAN & UMNEY.
Solid Extract Malt Liquid
SOUTHWARK, LONDON.

SILICATED CARBON
FILTERS
PATENT SELF-AERATING
MOVEABLE BLOCKS
WORKS, BATTERSEA LONDON. S.W.

MUMFORD'S
(FARRINGDON ROAD, LONDON, E.C.)
THE BEST THAT CAN BE PRODUCED.

PURE CRUSHED LINSEED	18/	1 cwt. carriage paid; or 7, 14 & 28 lbs. free on rail Lond.
PURE STARCH POWDER	26/	1 cwt. carriage paid; or 7, 14 & 28 lbs. free on rail Lond.
PURE FULLER'S EARTH (Light Colour)	16/	1 cwt. carriage paid; or 7, 14 & 28 lbs. free on rail Lond.
PURE FULLER'S EARTH	14/	1 cwt. carriage paid; or 7, 14 & 28 lbs. free on rail Lond.

CARRIAGE PAID
To Railway Stations within the radius of 200 miles from London (and allowance made for distance beyond) on 112 lbs. and upwards of above articles.

GLENDENNING'S BEEF AND MALT WINE.
Composed of Kepler's Malt Extract, Liebig's Beef Extract, and old Alto-Douro Port Wine. Being a standard preparation, it commands a ready and a steady sale. Order through your Wholesale House, or direct from
Established 1867. W. GLENDENNING & SONS, Established 1867.
WINE MERCHANT,
9 GRAINGER STREET, NEWCASTLE-ON-TYNE.
Works—Salzbach Buildings, St. Mary's Place.

THE OLDEST ENGLISH & AMERICAN CHEMIST in PARIS (founded 1808)
BOISSY late GALLOIS
2, Place Vendôme, Corner of rue St-Honoré
would undertake one or two additional agencies for patent Medicines, Sundries, etc. Special connexion amongst Doctors in Paris & Provinces.

MELLIN'S
THE BEST FOOD
FOR INFANTS & INVALIDS.

The Practitioner.

"WE have subjected FLETCHER'S CONCENTRATED LIQUORS to a prolonged test, and we are able to report that, when diluted according to the directions given, THE RESULTING TINCTURES, &c., ARE INDISTINGUISHABLE IN STRENGTH, APPEARANCE, AND EFFICACY FROM THE OFFICIAL PREPARATIONS."

Editorial Comments.

PRESCRIBING CHEMISTS AND COMPLAINING DOCTORS.

The medical papers and the discontented doctors of course make the most of the inquests which we reported last week at which a certain unqualified assistant to a chemist got censured twice in one afternoon in respect of two deaths o children for both of whom he had prescribed. We all know how perseveringly these cases are got up. Doctors have the power of forcing an inquest, and in three instances out of four they can rely on a sympathetic coroner. With such cards in their hands it is simply marvellous that they do not succeed in getting chemists or their assistants censured

much more frequently than we find to be the case. Many thousands of people go to chemists about their ailments in the course of the year. We cannot suppose that all of them are prescribed for perfectly. But if once now and then a baby dies within measurable distance of the time when a chemist gave any medicine for it, the case is complete. *Post hoc propter hoc* is the almost invariable medical argument, and, except when an unusually clear-headed coroner presides, the jury returns a verdict ' in accordance with the medical evidence."

We have always been particularly reluctant to write anything in this journal in advocacy of the practice of prescribing by chemists. We know that here and there it is carried to an unjustifiable extent, and we would rather assist in limiting it than in extending it. But the nonsense published in the medical papers is not the stuff to encourage a wholesome public opinion in regard to this subject.

The harm done by delay in cases prescribed for by chemists is only slightly realised by the public; and if juries would but do their duty in such instances great good would result.

So says the *Lancet*. What does the writer mean? What should juries do which they do not do at present? Mr. T. Garrett Horder, of Cardiff, in a long letter to the *British Medical Journal*. urges that "the [Medical] Council should obtain powers to prosecute all those who usurp the functions of the medical fraternity." That seems thorough enough, but it is almost too ridiculous to be exposed. The idea of prosecuting every old woman who advises a young mother how to treat her baby for wind is a little too lovely. "F.R.C.S." suggests that the Medical Defence Association might appoint "a higher class of chemists, bound over never to prescribe or invade the province of qualified medical practitioners." This is a smart enough idea, but the Medical Defence Association will need a lot of money to carry it out.

"M.D." is good enough to perceive that it would be impossible and undesirable that the public should be deterred from purchasing simple remedies for trivial ailments; but he heroically declares "some measures should be taken to restrain the universal routine prescribing that goes on." "M.D.'s" demand would probably be met by a law requiring that a chemist should never prescribe for a patient who was willing to spend a shilling and upwards.

The curious feature of this agitation against prescribing chemists which crops up in the medical journals periodically is that the indignant gentlemen who are so eager for some new form of legislation seem to ignore entirely that they have in the Apothecaries Act of 1815 a procedure whereby they could crush out chemists prescribing as completely as the most bloodthirsty of them could desire. According to the late Baron Bramwell, the Apothecaries' Society could if they thought fit recover a 20*l*. penalty from every chemist whenever he supplied a draught for a headache. Why do not the medical profession enforce the law they have instead of raving after a new one? Simply because they dare not. They know that the public would tear their statute into rags in a day if they were to attempt to invoke it except in flagrant cases, and the wisest of them are aware that the penal section of that Act is contrary to the spirit of modern British legislation, and will certainly be repealed if any new general medical Bill offers a favourable opportunity.

LECTURE-NOTES 1893.

There are different kinds of lecture-notes as well as different qualities. Some are put together with the intention of assisting or guiding young hands new to the work who aspire to the practice of a professional lecturer. In a few instances these notes do impart some help, but in many more they mislead or confuse, and the lecturer would often be far better off were he to depend on his own resources, and if he has a knowledge of his subject, as he ought to have, to draw upon that knowledge and set it before his hearers in his best possible manner. Lecture-notes are aids so far as the notes are made by the lecturer himself, for then he will know what he has to say, and will say it, which in nine cases out of ten is more intelligible than any attempt to define the suggestions of others.

But there are lecture-notes not written to guide a lecturer such being, on the other hand, the notes of the pupils on the actual lectures. These are often very confusing to the lecturer when he comes to read them for the purpose of giving marks or awarding prizes, and it is with some of these lecture-notes by students that we are now concerned. The notes are from the books of men, of the average age of 21, who during the past summer constituted a class for the study of economic botany.

The rough notes taken during the course of the lectures were afterwards written out in books by each pupil—in most cases, it is satisfactory to know, in a more clear and extended form—and submitted to the lecturer, to whom we are indebted for these actual examples of ignorance—rare, let us hope, amongst men who would be expected, or at least ought, to know better.

One man, describing the properties of the *Cruciferæ*, wrote:—"*Cruciferæ* has acrid properties, but is *wholesale*," meaning, of course, wholesome. Again, "Cuba bast (*Hibiscus elatus*) has now been *suspended* [superseded] by more durable material."

Another man states the fact that "aconite is very useful in killing pain, either for the interior or exterior of the body." Further on we are told that "the heads of opium are sacrifieed [scarified] by little lancets which are drawn from the bottom to the top of the heads to obtain the juice, which after going through a certain process, is made into cakes chiefly for feeding cattle." The writer has evidently got off the track here, and his notes must have been in a sad jumble to have allowed him to mix up opium and poppy seeds, to which his mind was evidently turning when he got cattle-cakes into his head. It is to be hoped that if he ever has any cattle of his own he will not be induced to feed them on opium.

But, here is another example:—"The chief characteristic properties of *Dipterocarpeæ* is the presence of *Oriel* resin." Passing on to the *Malvaceæ*, we are informed that "the cotton-plant is the most important *textual* fibre." This requires no comment, nor does the fact that "kola-seeds are used for *prolongation* of hunger." One gentleman appeared to be specially interested in mustard and the rose of Jericho when he wrote:—"The rose of Jericho we obtain mustard from this; it is grown in Egypt. We also obtain mustard from *Brassica alba*. The flower of mustard obtain biteing properties." The history of cotton-seed and its oil, especially where the latter is made into cakes, is given. Thus, "cotton-seeds at one time was used for manure, but for some time they have been valuable for the maintainance of oil made into cakes for feeding cattle.' The piney tallow, from which the natives of Southern India make candles, is thus dealt with:—"From the seeds of *Vateria indica* are obtained tallow candles by roasting and boiling the seeds."

The following choice bits will explain themselves:—"Root-stock of aconite used for mechanical purposes to allay pain in rheumatic affections." "From the berries of *Rhamnus catharticus* sage-green is obtained." "Chian turpentine was

once used for cannisters" (cancers). "Mastic is used on maps by artists and dentists." "The acid-juice of the lemon is used for obstructing the tartaric acid." "Linseed oil when applied by heat is of a dark colour, when extracted cold the oil is of a pale Hamburgh [amber] colour. The fibre when spinned is used for making tar pollings [tarpaulins], sail-cloths, linen, &c." "Ordeal bean has an easing effect on the spinal cord." "*Arachis hypogæa* oil used as a substitute for olive oil. The refuge after the oil is expressed is used for feeding cattle." "The best quality of gum tragacanth is obtained by cutting the stem as it whoozes out.' "The poisonous principle of *Abrus precatorius* can be dissected [dissipated] by heat." "Shola is a misconductor of heat." "Anime is a semifolius [semifossil] resin." "Mango is a native of India and the *warm* tropics." "When the pulp of *Cassia fistula* dries up the seeds become loose in separate apartments." "The bark of the balsam of Peru is beaten and then removed and heat applied to the *bear* part of the trunk; clothes are then put round, which soaks up the balsam." "Catechu-trees are cut down when about a foot high" [diameter]. *Strychnos* is used as a tonic and for nervous *diabilities*." "The resin of *Gardenia lucida* sticks to small pieces of wood and adheres to it." "The chief economic property of *Liquidambar orientale* is an *oilier* resin called liquid storax." "The grain-plant *excreates* in the morning a strong acid." "Kamala grows in India and the *Philistine* Islands." "Aloes is used as a powderful better medicine." "Grains of Paradise are used as a condiment and to give a felicitous taste to spirits and beer."

Amongst the foregoing extracts there will, no doubt, be found some to suit all tastes; but the remarkable taste of spirits and beer flavoured with grains of Paradise must impart a state of felicity known only to the writer of the note. We hope it will be long before he discovers the fictitious taste that he means to imply.

Some of the remaining notes do not bear directly on drugs or plants yielding drugs; but they further illustrate the shallow-patedness of the writers. Thus, we are told that "the wood of the lime was used by Gibbons for carving ever since the time of Charles II." So that Gibbons must now be a good old age. The meanings of some words appear to be quite misunderstood, or we should not find such sentences as this:—"When flax-fibre is spun into yarn it can be utilised for a very large number of various fabrics as it is very textile." "Sweet potatoes," we are told, "when cooked, have a taste due to the juice of sugar." The woods come in for curious treatment all round, thus:—"Beech-wood is used for many purposes, as for making butter-cups, cotton-reels, &c." Of course, butter-pats was intended. It is remarkable that two men expressed themselves in nearly similar terms when writing of the holly; but whether they considered it a testimony of the permanent character of the tree, we are unable to say. One man said, "Holly-wood is not liable to walk or split," while another wrote, "Holly, if properly seasoned, will not walk." A third man said, "The young shouts of the holly are used for whip-handles." Here is a botanical description of the mahogany-fruit which may be useful:—"The fruit of the mahogany is a capsule containing winged seeds which are realised [released] by dehiscence, and carried away by the wind." The carob (*Ceratonia Siliqua*) is described by one man as "St. John's Beard," instead of "St. John's Bread," while another says that "the mucilage of *Althæa* is used for effects of the throat," and another that "marshmallow is used greatly for making medicine."

The schoolmasters appear to have gone abroad in a body, and left the pupils to do the best they can for themselves, and the result is not encouraging.

DR. HASSALL'S AUTOBIOGRAPHY.

Dr. Arthur Hill Hassall filled such a prominent position in medico-chemical circles some years since that he has, we judge, fairly earned his right to offer his autobiography to the world. He was the pioneer of food-analysts; his exposures were, no doubt, the originating cause which led to the state of public opinion out of which the original Adulteration Act and the present Sale of Food and Drugs Act have grown; and his association with the medical profession on the one hand, and with traders of all kinds on the other, ought to have furnished much interesting matter worth recording and interesting to read. Dr. Hassall's autobiography has just been published by Messrs. Longmans, Green & Co., under the title of "The Narrative of a Busy Life." It is a book of about 250 pages, is sold at 5*s*., and we are sorry to have to add that we are a littledisappointed with it.

Dr. Hassall's most famous work was when he acted as "The Analytical Sanitary Commission" of the *Lancet*. The whole history of his investigations before, during, and after that "Commission" into the subject of the adulteration of food is given in fifteen pages. The author devotes almost as much space to accounts of his various illnesses, and nearly five times as much to a record of his investigations into the subject of the colouration of the leaves of plants.

Dr. Hassall is now well over 70 years of age. He nowhere tells us exactly what his age is; but he obtained his diploma as a member of the College of Surgeons in 1839, and is still in practice. He now lives in San Remo during the winter, and in Lucerne in the summer. His father was a doctor before him, and he thinks his grandfather was also a medical practitioner; but, luckily for his readers, he knows "but little of his grandfather's family, and it is now too late to learn more." The story of his father's courtship and marriage is brief and bright:—

> It was in Ireland that my father first saw the lady who was to become his wife. He was standing on the steps of an hotel in Downpatrick, when a ladies' school passed; he was struck with the appearance of one of the young ladies, boldly made himself known to the mistress of the school, and, after due inquiry and the necessary preliminaries, the lady, a Miss Anne Sherrock, became Mrs. Thomas Hassall.

The author tells the story of his own young days with so much sympathy and so much respect for himself as to compel his readers to long for some little sign of ordinary human depravity to relieve the monotonous excellence. His medical education was undertaken by his uncle, Sir James Murray, M.D., the well-known magnesia-knight. After getting qualified, Dr. Hassall commenced practice at Notting Hill, afterwards removing to Park Street, Grosvenor Square, and subsequently to Bennet Street, St. James's.

It was in 1850 that he first brought coffee under his microscope. The coffee, however, in the samples he examined seems to have been very microscopic indeed, and proceeding further, Dr. Hassall found that he could easily detect and distinguish the minute structures and tissues of the coffee-berry, and the chicory-root, even after both had been roasted and charred. This led to a communication to the Botanical Society. The next report was on brown sugar, "which abounded in living and dead acari, in all stages of growth and development." Mr. Thomas Wakley, M.P., the editor and proprietor of the *Lancet*, having noticed these reports, sent for Dr. Hassall, and after a little preliminary discussion, authorised him to prepare and illustrate a series of reports for that journal, of articles of food purchased in London "the names and addresses of those from whom the articles were obtained being given in full in all cases, whether the samples were genuine or adulterated." In this procedure Mr.

Wakley, no doubt, took a heavy risk, and he and Dr. Hassall rendered a great service. The reports were published from January, 1851, to December, 1854, and in all some 2,500 samples of food were examined and reported upon. It is a remarkable tribute to the care and skill with which the investigations were conducted that no legal action resulted from any of these reports. A few lawyers' letters were received, and in one case a declaration was delivered, but proceedings went no further.

Dr. Hassall's investigations on adulteration were extended to drugs and medicines, and he tells, not unfairly, of a round he had with Dr. Redwood at a meeting of the Pharmaceutical Society in 1856. The subject was annatto. Dr. Hassall had read a paper, in which, he says, he produced overwhelming evidence that annatto was grossly adulterated. He had been challenged to this proof at a previous meeting. "Mr. Redwood," he says, "made a clever and fluent defence but it was that of a sophist. He urged pleas rather than reasons for several of the practices described; either they were improvements or imported qualities which otherwise the article would not possess, but the more flagrant adulterations he simply ignored. While the oratorical honours were his, the facts were mine."

Dr. Hassall mentions several associations with pharmacy in the course of his story. He had an elder brother who was for a time a pharmacist at Cheshunt, during which time he used to ride to Charing Cross Hospital at 5 every morning to study for a medical diploma. This he ultimately took, and commenced practice at Richmond, where he made an ample fortune.

In 1888 our hero invented a "real safety poison-bottle." Dr. Hassall describes his invention in the following terms, which we hope will be more intelligible to other chemists than they are to us. He says:—

In the medicine, and, indeed, in all other bottles now in use, the neck is placed at the top of the bottle, in the centre, and is perforated (!) for the cork or stopper. In my bottle this neck is closed altogether, and the stopper is replaced by a glass bulb or knob; the true neck is placed at a little distance from the now superseded or false neck, but at a somewhat lower level. Thus my safety bottle is two-necked.

Dr. Hassall got some of these bottles made, and he is much puzzled to account for the fact that, though described and figured in the *British Medical Journal*, there has been no demand for them. If our modesty would permit, we might be able to explain the mystery to him. Later on, he tells us, he planned a "translation" of the British Pharmacopœia with botanic and chemical notes, but before he could get his out "Squire's Translation" appeared, and was so concise and practical that he abandoned his idea.

All through his work, Dr. Hassall writes kindly and pleasantly of everybody to whom he refers. The only exception we have noticed is an apparently ironical reference to English chemists on the Continent. "As important factors" to the success of the physician in fashionable towns on the Continent, he says, "the goodwill and aid is sought of the consul, chaplain, house-agent, and English chemist; strange to say this latter functionary is sometimes asked to advise the visitor in his choice of a medical man, and in doing so, he, of course, does not consider which doctor most patronises his pharmacy." This is unkind, but the moral is obvious. Be very respectful to the English chemist.

SALE OF ANGOSTURA BITTERS.

As many chemists put up and sell Angostura bitters, the annexed letter will be of interest. Messrs. Knowles & Phillips, of Aldgate and Gresham Street, E.C., had their attention called to the matter by a friendly Inland Revenue officer, who asked under what licence they sold the preparation. The firm hold a wine-licence, and explained that they sold it under that. The officer thought they were wrong, and they accordingly addressed a letter to the Board of Inland Revenue, to which the following reply has been received:—

E. 7665/93. Inland Revenue Office,
Somerset House, London, W.C.,
October 16, 1893.

Gentlemen,—In reply to your letter, dated the 19th ultimo, I am directed by the Board of Inland Revenue to acquaint you that "Dr. Sergent's Angostura Bitters" can only be sold under a spirit-licence.

I am, Gentlemen,
Your obedient servant,
J. B. Meers.
(For the Secretary.)

Messrs. Knowles & Phillips.

There is no question that this ruling is strictly correct. Angostura bitters, although a pharmaceutical preparation, can only be regarded as a medicine by a big stretch of the imagination. We are obliged to Messrs. Knowles & Phillips for calling our attention to the matter.

FEDERATION OF ASSOCIATIONS.

The Federation of Local Pharmaceutical Associations, concerning which we publish a circular elsewhere this week, seems likely to be popular. It is unfortunately launched at a time when no particularly burning questions are about, but perhaps one or more of these will obligingly turn up by the time that the scattered forces have been sufficiently drilled. When it becomes necessary to send round the fiery cross an organisation of this kind will be very valuable. We are not such advocates of "unity" as the writers of the circular appear to be. Apparent unity is never attained in regard to any subject worth discussion, except by the suppression or the indifference of opponents. Three chemists in a town may meet together and pass a string of resolutions unanimously, and such resolutions are often paraded as the opinion of the town, though there may be thirty others in the same town who know nothing of the proceedings. We should have thought the best service which a Federation of Local Associations could have rendered to the trade would have been to ensure that both sides, or rather all sides, of every subject should get fairly expressed. This might result sometimes in discord rather than in unanimity, but it certainly would develop a more intelligent appreciation of any question which the trade may be called upon to decide.

THE PEARS DIVIDEND.

The market seems to be fairly well satisfied with the report of the first year of Messrs. A & F. Pears (Limited). There have been slight fluctuations since the dividend was announced, but the ordinary shares are still at a substantial premium. Buyers of these shares at the issue price are getting 10 per cent. on their investments, and those who have bought on the market get 8 to 9 per cent. The total net profit earned has been 70,955*l.* This is within 1,000*l.* of the best year shown by the prospectus before the business passed into the company's hands. In the prospectus a statement appeared to the effect that in the vendors' opinion the advertising expenses could be safely reduced to 80,000*l.* a year from the 104,000*l.* which was spent in 1891. It would appear that they have found this immense sum insufficient. They have spent more than the 80,000*l.* in advertising, and "the vendors have agreed to bear the excess." This shows a very sensitive conscience on the part of the vendors, but it shows quite as clearly how delicately sensitive such an article as soap is to fluctuations in advertising. It is evident that the directors had very quickly found that economy in advertising was not a wise policy.

C

The Winter Session.

CHEMISTS' ASSISTANTS' ASSOCIATION.

At the meeting of this Association on October 19, Mr. Lloyd Williams, F.I.C., read an interesting paper, entitled "A Pharmacist's Holiday." It described a walking-tour he had taken last summer, starting with a day or two's training on the hills round Malvern to get up his walking powers. Mr. Williams first mentioned several of the points of interest in that neighbourhood, and also the botanical features. There are over 900 phanerogams and 1,000 cryptogams in the local flora. From Malvern he proceeded through the Wyche and over the Herefordshire Beacon to the old British Camp at Colwell, close to which is Eastnor Castle, the residence of Lady Henry Somerset. In the village there is an inn with a sign still hanging—nothing stronger than cocoa is obtainable there. Ledbury, the next town reached, is a typical old-world town, and its church is of great architectural beauty. A guide to Ledbury has been published by a Mr. Freeman, a pharmaceutical chemist. From Ledbury he took train to Hereford, the cathedral of which was described in detail, and Mr. Williams advised everyone visiting the city to see the famous "Mappa Mundi." From Hereford by train to St. Devereux, nine miles distant, where Kilpeck Church, a very unique piece of Norman architecture, is to be seen. From Kilpeck to Abbey Dore was the next stage. The famous abbey of Abbey Dore was preliminarily inspected in the deepening twilight, and while gazing on what seemed like the figure of an angel on an arched doorway Mr. Williams was startled to see it spread its wings and noiselessly leap away, to leave him convinced that it was only an owl. From Abbey Dore the next stage was to Vowchurch, thence to Peterchurch, and on to Dorstone; more ancient chur hes were described. From Dorstone to Westbrook, and on through Hay, Paincastle, Newchurch, and Huntingdon to Kington. Thence to Newbridge-on-Wye, and next to Rhayader. This pretty place will soon be submerged by the formation of a reservoir to collect the water from the rivers Elan and Claerwen, which is to form the water-supply for Birmingham. On the way from Rhayader he found vegetable life very abundant, especially in damp places, and picked specimens of lycopods, polytrichum, drosera, polygala, sedum, cotton-grass, pedionlaris, and pinguiculis, and saw acres of bog-moss, rushes, and sedges, which reminded him of Ruskin's quotation from "Frondes Agrestes":—"All the while as it [the world] bought, sold, and fought, and feasted, and wearied itself with policies and ambitions and self-denials, God has placed its real happiness in the keeping of the little mosses by the wayside, and of the clouds of the firmament." At Aberystwith he inspected the University Chemical and Physical Laboratories, and visited the Museum and Library.

The paper was illustrated by lantern-slides of the varions places of note, which Mr. Williams had prepared himself, and photographs, as well as botanical specimens of some of the rarer plants which he found. The paper gave much pleasure to those who listened to it.

BRIGHTON JUNIOR ASSOCIATION OF PHARMACY.

The fourth annual dinner was held on October 18, at the Café Royal. The President, Mr. C. G. Yates, was in the chair. After dinner the usual toasts were proposed and many songs were sung. Mr. Marshall Leigh replied for "The Pharmaceutical Society," which was proposed by Mr. H. G. Price. Mr. A. P. Nosworthy proposed "The Senior Association," for which Mr. W. H. Gibson replied; and Mr. W. W. Savage returned the compliment by proposing "The Junior Association." Subsequently a silver cigarette-case was presented to Mr. A. P. Nosworthy, an ex-President, who was leaving England for Nice, and the following prizes were distributed to members:—For collections of medicinal botanical specimens the first prize, Remington's "Pharmacy," presented by Mr. W. D. Savage, was awarded to Mr. C. Kent; the second, Proctor's "Practical Pharmacy," presented by Mr. Gwatkin, was secured by Mr. W. J. Snow; and the third, Willis's "Elements of Pharmacy," presented by Mr. E. Histed, was carried off by Mr. Bridgwood. The same gentlemen offered prizes to be competed for during the next session in a similar competition.

EAST ABERDEENSHIRE CHEMISTS' ASSOCIATION.

At a meeting of the chemists of the Peterhead district held at Maud on October 18, to elect a local secretary of the Pharmaceutical Society, Mr. Tocher, of Peterhead, was unanimously re-nominated for the ensuing year. On his motion, it was afterwards resolved that the East Aberdeenshire Chemists' Association should be resuscitated, with Mr. McGregor, of Ellon, as President.

BOLTON PHARMACEUTICAL ASSOCIATION.

The newly-formed Pharmaceutical Association of Bolton met for its first annual meeting on October 18. The President, Mr. W. B. Mason, occupied the chair, and was supported by a goodly gathering of the trade. After the transaction of some formal business, a discussion ensued as to steps to be taken to look after the interests of the trade in the town. Two lines of action were indicated, and are to be followed out. The Secretary stated he had seen the publishers of a local Directory with regard to eliminating all unregistered men from the Directory list of chemists and druggists. The President and Secretary were deputed to interview the firm in question and try to carry this point. It was also decided to recommend the members who have votes to nominate Mr. W. R. Blain as local secretary.

LIVERPOOL CHEMISTS' ASSOCIATION, 1893-94.

The following are the arrangements for the above Association so far as they have been perfected:—

October meeting. Mr. A. C. Abraham.
November meetings. Mr. A. E. Lomax: "Some Uncommon Members of Common Natural Orders"; and Mr. Ward'eworth.
December meetings. Mr. E l. Davies and Mr. Pearson.
January meetings. Mr. Richard Beynon, and President's inaugural address.
February meetings. Mr. M. Conroy and Mr. J. Martin.
March meetings. Dr. Symes and Mr. T. S. Wokes.
April meetings. Mr. Cowley and Mr. Hornblower.

Questions and miscellaneous communications may be expected at each meeting.

LIVERPOOL PHARMACEUTICAL STUDENTS' SOCIETY.

The Secretary of this Society is Mr. R. H. Mitchell, 13 Tithebarn Street. It was given incorrectly last week.

THE NORTH BRITISH BRANCH.

The winter session of the North British Branch of the Pharmaceutical Society will be opened on November 17 with an address by Professor Cash, professor of materia medica in the University of Aberdeen.

FEDERATION OF LOCAL PHARMACEUTICAL ASSOCIATIONS.

The following circular is being sent to all local Pharmaceutical Associations in Great Britain:—

Dear Sir,—For a long time it has been felt by many that some means of giving united expression to the deliberations of the various pharmaceutical organisations was much to be desired, and as a result of a well-attended meeting of delegates of local associations, and local secretaries of the Pharmaceutical Society attending the British Pharmaceutical Conference held on August 16, at Nottingham, it was unanimously resolved, that:—

"A Federation of Local Pharmaceutical Associations be formed, its object being to promote the greater unity of pharmacists, and the better protection of their trade interests."

The great object we aim at is *Unity*. Individual associations scattered over the country are almost powerless for purposes of organisation, for however well an opinion may find

expression, under present circumstances it merely represents the view of a small knot of individuals, and therefore is invested with little or no influence; but under the suggested plan a united voice would make itself heard through a recognised and influential channel all over the country, and the common intelligence exercised in formulating it would free it from the suspicion of individual influence, and could not fail to command respect; moreover, such an organisation would tend to strengthen existing associations, and would also stimulate the formation of new ones.

It is proposed that an executive committee be appointed, consisting of a delegate from every local association in Great Britain, such delegate to have full power to act and vote for the association he represents. At the annual meeting, which will be held at the same time and place as the British Pharmaceutical Conference, such matters as pertain to the welfare of pharmacy will be discussed, and such arrangements resolved upon as may seem desirable for the better carrying on of the work of the Federation.

In order to further the object aimed at will you kindly lay this circular before an early meeting of your association, and inform us whether or not it is prepared to co-operate on the lines laid down, and whether you are prepared to offer suggestions for broadening or otherwise improving them, and if the circular generally meets approval will you at once appoint a delegate to act with us who will attend any meeting we may deem necessary to convene?

Yours faithfully,

W. Gowen Cross, *Chairman (pro tem.)*.
W. L. Currie.
H. Kemp.
C. Thompson, *Hon. Secretary (pro tem.)*.

Kindly reply to Chas. Thompson, 159 Stratford Road, Birmingham.

TRADE-MARKS APPLIED FOR.

Any person who has good grounds of objection to the registration of any of the following marks should *at once* communicate with Sir Reader Lack, Comptroller-General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

(*From the "Trade Marks Journal," October* 11, 1893.)

Kill Pain, applicant's signature and address, and wording on label; for a medicine. By J. Northway & Co., 27 Great Tower Street, London, E.C. The essential particular is the signature. 168,830.

Franz Josef, other wording, and device of anchor and shield with letters F. J.; for a medicinal water. By Moritz Hirschler, 18 Waitznergasse, Budapest. The essential particular is the device. 174,752.

Coat of arms, device with monogram, and words "Calon with Galon"; for quinine bitters and balsam of honey. By John Davies, 30 High Street, Swansea. The essential particulars are the device and words mentioned. 174,589.

Sanzel; for a liniment for rheumatism, sprains, bruises, &c. By J. Holt, trading as The Sanzel Company, 10 Howarth Place, Camp Road, Leeds. 174,859.

Vanhargan; for medicinal preparations. By L. T. Ashwell, Natal House, Hadlow, Kent. 174,911.

Tulip Ointment, and device of white tulip on a black label, and wording; for ointments for human use. By Smith & Moon, 111 Knatchbull Road, Camberwell, London. The essential particular is the device. 174,951.

"Northway's Bouquet," monogram, signature, and wording; for a perfume. By J. Northway & Co., 27 Great Tower Street, London. The essential particular is the signature. 172,004.

Device of an egg, signature, and wording; for a preparation for the hair. By H. Harding, trading as Phillippe Henri, Saponaceous-powder Factory, Sutton, Surrey. The essential particulars are the device of an egg, and the *facsimile* signature. 173,965.

Pharmaceutical Society of Great Britain.

PRELIMINARY EXAMINATION.

We have received from the Registrar of the Pharmaceutical Society of Great Britain the following list of candidates who were successful at the first examination, held on October 10:—

Adamson, John, Tottenham
Albery, Henry W., Plumstead
Aldridge, Ernest, Shepherd's Bush
Allan, George, Aberdeen
Anderson, Wallace H. J., Harlesden
Anderson, William, Dunfermline
Appleton, John T., Sheffield
Ashton, Charles Henry, St. Helens
Barritt, Percy, Norwich
Battersby, Wm. Eckersley, Westhoughton
Bell, Beaupré, Wisbeck
Bennett, William C., Bristol
Beveridge, Charles Ernest, New Brompton
Bice, Frederick M., Louth
Billington, Samuel P., Huddersfield
Birchall, Fred, Preston
Blake, William, Galashiels
Blyton, John H., Manchester
Bonner, James, Annan
Booth, John H., Huntly
Boyd, Thomas, Glasgow
Brewer, Philip J., Deal
Brown, George A., Bishop Auckland
Brumpton, John W., Lincoln
Campbell, James, Falkirk
Chalmers, William T., Hamilton
Chambers, Fred A., Liverpool
Cherry, Frederick, Bloxham
Clark, William D., Leeds
Cleaver, Samuel E., Leicester
Clowes, William, Cheddleton
Clunas, John, Nairn
Coates, Harold K., Waterloo
Cocking, Harold H., Rotherham
Cooper, Thomas, Runcorn
Courtenay, Edward, Shrewsbury
Curry, George, Coldstream
Cuteliffe, Charles, Dawlish
Dale, Frederick, Old Basford
Davis, John S., Alexandria
Davies, David M., Ammanford
Dewhirst, John A., Halifax
Downing, Alfred, Plymouth
Duncan, James G., Portobello
Dunsire, Robert, Kirkcaldy
Elliott, William G., Penrith
Evans, Arthur Wm. J., Maindee
Evans, Edgar L., Cardiff
Evans, John Owen, Portmadoc
Ferguson, John D., Brighouse
Fitzgerald, John C., Doncaster
Gaskin, Charles, Cricklewood
Gillis, Adolphus, Sunderland
Goundry, Edward R., Cardiff
Gregson, William C., Blackburn
Grieve, John, Edinburgh
Griffiths, Edwin, Kidsgrove
Gross, Geo. F. C., Barrow-in-Furness
Gyles, Emily, Clapham
Hacker, George A., Cheltenham
Halewood, John H., Southport
Hall, Lennox H., Macduff
Hall, Walter H., Littleborough
Hambling, Jane, Birmingham
Hardisty, John H., Ilkley
Hatfield, Aubrey H., York
Heywood, Frederick, Preston
Hodgkinson, Ethel, Tottenham
Hooper, Richard John, Wood Green
Howden, Joseph T., York
Irving, George, Annan
Jeanes, Richard, Weymouth
Jenkins, George P., Cardiff
Jones, George M., Birmingham
Jones, Robert, W., Louth
Keeley, George R., Croydon
Keeton, William H., Mansfield
Killick, Herbert J., London
King, Alfred, Leicester
King, Arthur E., Norwich
Lewis, Thomas P., Brierley Hill
Low, William A., Gloucester
McAdam, Alexander M., Glasgow
McCune, William, Kilwinning
McKinnel, John, Glasgow
Maclees, John P., Wishaw
Mallinson, Cuthbert S., Brondesbury
Manson, Thomas, St. Andrews
Measday, Charles S., Deal
Melling, Alfred Ernest, Ashton-in-Makerfield
Middleton, John G., So. Norwood
Milligan, William R., Newcastle-on-Tyne
Mills, Edward P., St. Leonards
Milne, Joseph, Aberdeen
Milne, Thomas, Aberdeen
Milner, William C., Gainsborough
Mitton, Thomas J. L., Huddersfield
Moore, William, Seedley
Nicol, George, Aberdeen
Noble, Harry W., Manningham
Parker, William S., Carlisle
Parr, Leonard T. W., Birkenhead
Percival, Thomas H., Walthamstow
Perrott, David J., Burry Port
Piggin, Leonard W., Tunstall
Pool, Robert, Annan
Pratt, Augustus W., Dudley
Redman, Stanley C., London
Rees, Arthur H., Neath
Rees, David E., Llandilo
Rees, James D., Fishguard
Richardson, Robert, Blackburn
Robinson, John G., West Hartlepool
Rowe, William A., Colwyn Bay
Ruoff, Francis H., Reading
Scaife, Samuel B., Manchester
Scholefield, Samuel G. C., Bingley
Scott, James W., Leith
Senter, John W., Kildrummy
Sime, William, Dundee
Skelton, Tom, Silloth
Skinner, Grahame H., Leith
Sonley, Walter, Littleborough
Stewart, James L., Carluke
Stringer, Horace, Barnsley
Stuart, John M. G., Dufftown
Thexton, Thomas A., Kendal
Thompson, Edwin, York
Thompson, Edwin G., Bury
Thomson, Thomas, Forfar
Thorpe, Frank E., Long Eaton
Toon, Arthur, Earl's Shilton
Traylen, Charles L., Leicester
Walker, Alexander C., Aberdeen
Walker, James, Helensburgh
Walsham, William, Gedney
Watson, Edward A., East Wemyss
Watt, Edward W., Guisborough
Webb, Ernest G., Bristol
White, Edgar C., Cheltenham
White, Thomas W., Stirling
Whitworth, Arthur U., Sleaford
Williams, John H., Llanstephan
Wilson, Ernest J., Southsea
Wilson, Joseph E., Bath
Winchester, George, Egremont
Woodhead, Alfred E., Eaglescliffe
Yates, Thomas, Cradley Heath
Young, James P., Alva

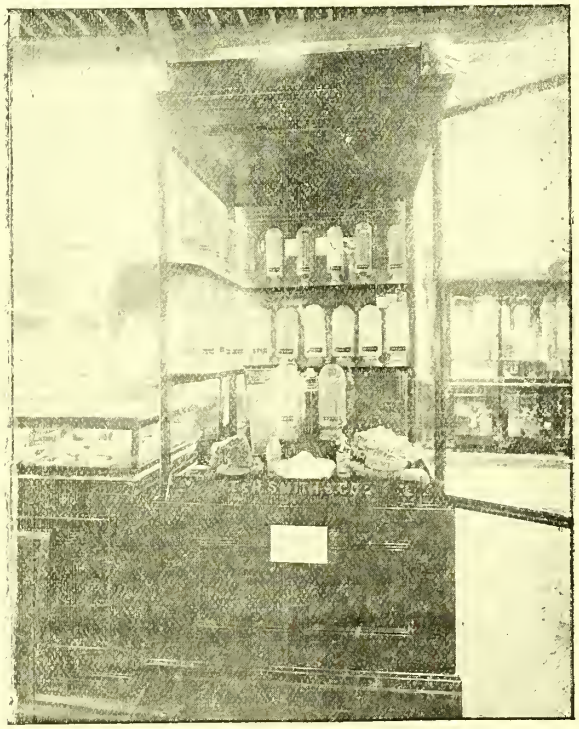
The Chicago Exposition.

Uncatalogued Exhibits.

When walking through the various buildings in the Fair, one occasionally comes across exhibits which are not mentioned in the official catalogues. For example, in the Liberal Arts Gallery of the Manufactures Building there is a small case devoted to the thermo-urinometers and thermo-hydrometers invented by Mr. F. W. Fletcher, F.C.S., and exhibited by Messrs. Fletcher, Fletcher, & Stevenson, of the Holloway Chemical-works. These instruments attracted considerable attention when our reporter was doing the Fair. We have already mentioned that the Women's Building contains an exposition of nursing as pursued in various countries. There is a British Nursing Section here, and, in connection with it, several well-known firms have contributed without actually exhibiting in their own name. Thus Messrs. W. H. Bailey & Son, of Oxford Street, W., contribute nurses' chatelaines and all instruments used by nurses in their professional work; Messrs. J. F. Macfarlan & Co., of Edinburgh, send a collection of every kind of surgical dressing used in Great Britain; and the glass instruments, &c., are from Messrs. Powell, of Whitefriars. The nursing exhibit is a most interesting one, and as it is in the most popular building it receives considerable attention.

T. & H. Smith & Co., of Edinburgh,

are placed in an unfortunate position in the British Section, where darkness overshadows the brilliance of their products, and these, when our representative first saw them, were not in precisely the best condition for exhibition. That has been remedied now, however, and we give an engraving of the case as it stands. The products shown are the alkaloids of opium, jalapin, scammonin, salicin, &c. The case in which they are displayed is an upright one, with two rows of



shelves on two sides of the case. The show-jars used for the specimens are of about 4 lbs. capacity. Prominent in the basement of the case is an exceptionally large specimen of codeine, which was crystallised in one huge saucer, weighing 218 oz. net, but was broken in transit. This is accompanied by a finely-crystallised specimen of phosphate of codeine. Cryptopia, an alkaloid of opium, discovered by the firm in 1882, and all other opium derivatives are shown, amongst them xanthaline and its nitrate and hydrochlorate, the discovery of which was only announced in March, although the firm have known of its existence since 1881. Some beautiful jalapin, in small lumps, stands beside a bottleful of powdered scammonin of snowy whiteness, and not far off is scammonin in lump and powdered jalapin, which is also white. These, with aloin, gingerin, and salicin, and some medicinal mineral compounds, constitute the major part of the exhibit, but the firm's brand of chloroform is shown, and several of their pharmaceutical specialities, such as "Tela Vesicatoria" and the "Liquid Belladonna Plaster," which our leading pharmacists have made such a bungle of in imitating. So far as the appearance and quality of the specimens shown are considered, Messrs. Smith & Co. have reason to congratulate themselves, but it is unfortunate that the only British exhibit of alkaloids and allied products should have been placed in such a bad position, and that some of the finest specimens have come to grief in transit.

J. D. Riedel, of Berlin and Grunau.

When one remembers that it is scarcely a lifetime since the founder of this firm commenced to manufacture quinine for the Prussian Government, thus pioneering an industry which in more recent years has become of universal importance, it startles one to note the change of meaning which the whirligig of time has placed on "New Remedies." The Riedel of 1826 worked with bark, and was heedless, no doubt, of the constitution of the peculiar basic compound which he obtained from it. That alkaloid and similar substances were the new remedies of his day. Now his descendants—Paul Riedel and Fritz Riedel—bring together in Chicago a collection of New Remedies which have been built up by artificial means to simulate in composition those natural products of which quinine is a type. An exhibition such as the World's Fair would fail as an epoch-making spectacle if it were simply a congeries of big buildings and the haunt of millions of men. The World's Fair has failed financially, but as an exposition of the commerce and science of the close of our century it is about the completest thing anyone could wish for. Intrinsically it is a success. This comes home to us very really when we examine such exhibits as Riedel's. The firm's case is in the corner of the court. A large space it is, well adapted for the three pyramids of products which make up the exhibit. They are backed by a hanging of black velvet upon which the words "New Remedies" stand out boldly in white script letters. The central pyramid is topped by a vase of sulphonal, a typical synthetic sudorific, and beside it are globes of chloral-chloroform, bromethyl, methylene chloride, and methyal, each an example of what anæsthetics and surgery owe to chemists; while chloral hydrate in beautiful crystals stands as the modern rival to morphine, the oldest narcotic known to man. The left pyramid we may call the salipyrin and phenacetin one. As anti-nervines these substances have properties not shared by any natural product to the same degree. The phenacetin is shown in two forms, one being almost pulverulent, being the crystallisation from water, while that crystallised from alcohol is in very large and translucent crystals. In contrast with these, nearly-related compounds are placed beside the specimens, including sodium salts of two nitrophenols, which exhibit in an instructive way the relation of colour to the condition of the base, for the ortho compound is red, and the para yellow. The whole exhibit of phenols and phenetols is excellent, and we noticed fine samples of guaiacol, gaultheriol and eucalyptol. The right pyramid is devoted to some special manufactures of the house, such as liquid and solid thiol, an organic sulphur compound of the ichthyol class: dulcin, a synthetic sweetener, in large and small crystals; ethoxy antipyrin salicylate, a compound possessing the antifebrile properties of antipyrin without its depressing influence; tolypyrin, tolysal, &c. The whole exhibit is arranged in an artistic manner.

Zimmer & Co., Frankfort.

An exhibit of alkaloids with which the name of Dr. O. Hesse is associated seems certain to be interesting, and we are not disappointed when we turn to the case devoted to the products of the united factories (Vereinigte Fabriken) of Zimmer & Co. This carries with it the reputations of Friedr. Jobst and Conrad Zimmer, the former going back as far as

1806, and the latter to 1836. The fusion of the two factories is a matter of recent history, but though it has taken place there is still individuality in the commercial connection, for the trade part of their Chicago exhibit consists of a pyramid of quinine sulphate in bottles with Jobst labels and Zimmer labels. But these are not the attraction, for in front of the case are a series of shelves, containing small samples of the rarest alkaloidal combinations and derivatives, which exemplify in an excellent manner the researches of Hesse and his colleagues upon the cinchona and coca alkaloids, as well as the mydriatic alkaloids. First among these we observe a group of quinine sulphates, the most interesting being the tetra-sulphate, a salt containing double the amount of sulphuric acid that the acid sulphate contains—that is, two molecules of the acid to one of the base. It was discovered by Hesse, and occurs in large stellate crystals, yellowish in colour, but transparent, each crystalline mass weighing about 10 grammes. It crystallises with $7H_2O$. There is a sample of the hydrochloride (sesqui-hydrated) almost of the same shape, but somewhat yellowish in colour. This is an exceptional crystallisation—in fact, it is quite new. Silky needles are the form which the hydrochloride with $2H_2O$ takes. Practically the whole of the simple compounds of quinine, cinchonine, quinidine, and cinchonidine, with the commoner inorganic and organic acids, are represented, but these do not call for comment. There is, however, a noteworthy group of what we may call double-acid alkaloidal compounds, which have not been publicly shown before. We mention a few of these as examples, giving English names to them which closely resemble the German ones:—

Quinine hydrochlor-carbamidate.—A yellow salt in needle-shaped crystals, resembling oxalic acid.
" resorcin-hydrochloride.—Flesh-coloured crystals.
" hydrocinchonine hydrochloride.—White crystals.
" " acid-sulphate.—Yellow crystals.
" phenol-hydrochloride and quinine phenol-sulphate.—Four samples, acid and neutral, of each, all being in white crystals.
" orcin-sulphate.—A neutral white salt.
" pyrocatechin-sulphate.—An acid salt in yellow crystals: also a corresponding compound with pyrogallol, darker in colour.

Some combinations of a similar nature with cinchonidine and cupreine we also noted, and a new body called cinchol, whose composition does not appear. We take it that the above-mentioned compounds are not derivatives, but belong to those remarkable groups of compounds which quinine is known to form with phenols and similar hydrocarbons. It would be interesting to have the therapeutic properties of these compounds determined. We cannot get rid of the supposition that natural quinine, artificially modified, will yet give us a better antipyretic than purely synthetic bodies, and the cheapness of quinine and its congeners nowadays leaves plenty of margin for experiment. Space scarcely allows us to enter into detail regarding the other compounds exhibited, such as the alkaloids of coca, coto, and belladonna, and galenical preparations of cinchona, aloes, &c., but we may mention that coca wax, which Hesse spoke of in London, is shown for the first time (it is palmityl-beta-amyrin); so also are the nitrate and picro-nitrate of cocaine, and cinnamyl-cocaine and its hydrochlorate. The exhibit will maintain the Jobst-Zimmer reputation, and we hope that some pharmaceutical museum in America or Europe will secure a portion of it.

A Stollen Romance.—Mr. Henry Stoll, a Boston druggist, has married Miss Hattie Madison, an actress of Palmer's Theatre, New York. Mr. Stoll and Miss Madison were dining together in New York, when suddenly Mr. Stoll said: "Let's get married." "Let's," answered the actress, whereupon a preacher was called and the two were made one.

Alleged Frauds by Soap-manufacturers.—Considerable sensation has been caused at Berlin by the news of the arrest of Herren Mosesmann and Vissing, the proprietors of a soap-factory, carrying on business under the title of Vissing & Co., who are charged with having defrauded their provincial customers by falsifying contracts. Eight of their employés, who are accused of complicity, have also been arrested. Herr Mosesmann managed the factory at Berlin, while Herr Vissing had charge of a branch establishment at Leipsic.

New Companies.

Llynvi Valley Aërated Water Company (Limited).—Capital 2,000*l.*, in 2*l.* shares. Objects: To carry on the business of manufacturers of and dealers in all kinds of aërated and mineral waters. The first subscribers are: J. Jenkins, 14 Bridge Street, Maesteg, builder, 5 shares; Evan Thomas, Maesteg, 10 shares; D. Griffiths, Pencoed, builder, 10 shares; Jas. Jenkins, Abergwnfi, 5 shares; J. M. Lewis, 24 Castle Street, Maesteg, 10 shares; Evan Davies, Castle Street, Maesteg, 5 shares; Wm. Rees, Castle Street, Maesteg, 5 shares. Office, 4 Castle Street, Maesteg, Glamorgan. Registered without articles of association.

McKenna & Co. (Limited).—Capital 15,000*l.*, in 10*l.* shares. Objects: To carry on the business of oil refiners and manufacturers, vendors of oils, chemicals, disinfectants, paints, and varnishes, manufacturing-chemists, oil and colour merchants, &c. The first subscribers (who take one share each) are: F. Duncan, 3 Underhill Road, Dulwich, traveller; T. Sellars, 35 New Bread Street, E.C., agent; W. Duncan, 5 Underhill Road, traveller; E. G. Cranfield, 182 Royal Mint Square, E., clerk; J. E. T. Woods, 16 Eastlake Road, Brixton, engineer and chemist; A. J. Campion, 3 Devonshire Terrace, S.E.; H. K. Spark, 17 Applegarth Road, Brook Green, W., clerk. Registered without articles of association. Office: 23 Garlick Hill, London.

Wood, Chapman & Co. (Limited).—Capital 10 000*l.*, in 1*l.* shares. Object: To acquire the business of a chocolate-manufacturer specified in agreement, and to carry on business as chocolate and cocoa manufacturers and confectioners in all branches. The first subscribers (who take one share each) are: J. E. Wood, Exbury Road, Catford, Kent, agent; A. H. Chapman, Raglan Villa, Wisbeach, traveller; J. Laurence, 44 Holland Road, Kensington, W., solicitor; H. L. Piper, 17 Fenchurch Street, E.C., merchant; G. J. M. Kearton, 17 Fenchurch Street, E.C., merchant; E. W. Evelyn, 122 Tredegar Road, Bow, clerk; D. Davidson, 17 Fenchurch Street, E.C., merchant. The first directors are S. H. Barnwell and A. A. Loose, of Brighton; qualification, 500*l.*

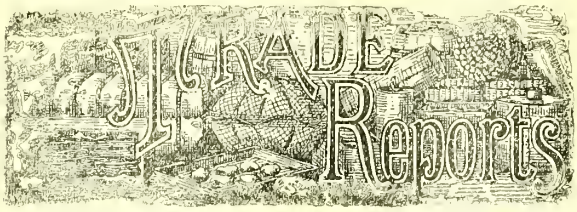
DEED OF ARRANGEMENT.

The following deed of arrangement with creditors has been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1867. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision in the Act making any of these arrangements binding upon dissenting creditors.

Pickering, Charles Edward, 2 Boswell Place, Stapleton, chemist. Trustee: Edwin J. Richards, Small Street, Bristol (accountant). Dated October 23: filed October 25. Unsecured liabilities, 196*l.* 10*s.* 6*d.*; estimated net assets, 150*l.* The following are scheduled as creditors:—

	£	s.	d.
Breffett & Co., London	13	12	9
Chemists' Association Company (Limited), London	11	8	2
Clements, S. J., & Co. (Limited), Bristol	20	18	0
Gilbertson, H., & Sons, London	10	19	7
Moore, E. T., Bristol	14	7	0
Townsend, J., Exeter	19	8	1
Western Finance Association, Bristol	12	0	0
Wright, Laymau & Umney, London	40	4	0

They tell us that few druggists in the States sell window-glass and wall-papers. That is a tale for the marines, but if it were not there is a druggist at Carroll, Ia., who goes a long way to strike an average. He saved all the trimmings of wall-paper and piled them in one show-window and had a placard in front reading, "The trimmings of one day's sale of wall-paper." This is an idea for other druggists who don't sell wall-paper to follow up.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

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42 CANNON STREET, E.C., *October* 26.

The "Regrettable" Shellac-incident.

The singular proceedings at last week's shellac-auctions, upon which we commented in our issue of October 21, have attracted the official attention of the General Produce Brokers' Association of London, a body which has always shown commendable promptness in endeavouring to maintain a high standard of commercial morality among its members. The committee of the Association, under the chairmanship of Mr. S. Figgis, met on Tuesday of this week, and, after discussing the events which took place at the shellac auctions of October 17, unanimously passed the following resolution:—

> The Committee seriously deprecate any unfair attempt to influence or wreck markets by advertising produce "without reserve" and withdrawing the goods at the last moment.
>
> The Committee further regret a recent incident in public sale, and request the selling brokers to convey to their principals the strong protest of this Association, and in any future similar case the Committee consider the selling brokers should publicly declare the name of their principals.

The Perfume Drawback.

The Perfumery Committee of the London Chamber of Commerce met on Friday last, under the chairmanship of Mr. Gosnell, to consider the circumstances under which the Excise had returned the strength of a certain hair-douche for exportation under drawback as 14 6 o.p., instead of 33° o.p., the actual contents of spirit, the difference in this case being obscured by glycerine. A deputation was appointed to confer with the authorities on the matter. It consists of the Chairman, Messrs. Tyrer, Breidenbach, E. Barret, and others. We believe that the house raising the objection were Messrs. Southall Brothers & Barclay, of Birmingham.

The Home Office Inquiry into Dangerous Employments.

The Chemical Section of the Chamber of Commerce continues to watch the proceedings of the Dangerous Employments' Committee, appointed by the Home Office to inquire into the condition of the workers and the regulations required for their safety in chemical-works. On Monday a deputation from the Chemical Section met the Dangerous Employments' Committee at the Home Office—Messrs. David Howard (of Howards & Son, Stratford), Thorpe (of Lewis Berger & Co., Homerton), Dr. Messel (of Spencer, Chapman & Co., Silvertown), and Thomas Tyrer (of Thomas Tyrer & Co., Stratford) representing the sections, and Messrs. Cramp (the superintendent of the Midlands district, under the Factory Act), chairman; Richmond (superintendent of the Liverpool District), secretary; Professor Simpson (of the University of Glasgow), Dr. O'Neill (of Widnes), and Mr. A. E. Fletcher (Her Majesty's Inspector under the Alkali Acts) the Government.

The Cubeb Market.

The *O. P. & D. Reporter*, in reviewing the position of cubebs, observes:—"Cubebs are now approaching the level which prevailed previous to 1880. In October, 1877, the minimum price of cubebs in the New York market reached the unprecedentedly low figure of 8c. per lb.; but from this time forward, with a few retrogressive steps, values appreciated until high-water mark was attained in 1889, when sales were made as high as $1·75 per lb. The causes of the high prices relate principally to speculative manipulation. It has been estimated that the average annual consumption of cubebs is about 150,000 lbs., and, if this is reasonably accurate, the proportion of the production brought to the United States is very considerable, as will be perceived by reference to the Government reports for the past ten years. These are the figures: 1883, 120,618 lbs.; 1884, 89,745 lbs.; 1885, 82,526 lbs.; 1886, 110,065 lbs.; 1887, 61,481 lbs.; 1888, 68,031 lbs.; 1889, 51,021 lbs.; 1890, 84,729 lbs.; 1891, 65,404 lbs.; and 1892, 115,974 lbs. The year of the largest importations was 1879, when 277,422 lbs. arrived in this country. It is easy to understand that such immense quantities were not needed except to meet a fictitious, speculative inquiry which developed strongly about that time."

Acid (Citric).—Remains very dull of sale, and is offering at from 1*s.* 5¾*d.* to 1*s.* 6½*d.* per lb., according to quality and brand. New season's juice may be had at 15*l.* 10*s.* per ton f.o.b.

Acid (Tartaric).—Slow of sale at 10¾*d.* to 11¼*d.* per lb. for crystals, according to brand and quality.

Aloes.—Several new parcels of *East Indian* aloes made their appearance to-day. One of these, consisting of 65 kegs brown and soft aloes of good flavour, was bought in at 90*s.* per cwt. Another parcel of 21 cases fair *Zanzibar hepatic*, in tins, sold at a decline of about 5*s.* per cwt.—viz., 35*s.* to 43*s.* per cwt. *Curacao* aloes still continues to arrive from New York, and at to-day's sales another recently-imported parcel of 167 packages was offered. Fine bright brown, partly capey, gourds were bought in at 60*s.* to 70*s.* per cwt.; dark glossy capey, in boxes, sold at 20*s.* to 21*s.* 6*d.*; and ordinary dull overheated brought 12*s.* 6*d.* to 19*s.* 6*d.* per cwt. About two-thirds of the quantity offered was sold. For *Cape* aloes higher prices are generally asked and only one lot sold, at 25*s.* per cwt., subject to approval, for fair, partly soft, quality. Another parcel of 14 cases was bought in at from 30*s.* to 34*s.* per cwt.

Annatto.—Fully ½*d.* per lb. higher. Of 26 bags shown to-day 18 sold with good competition at 3½*d.* per lb. for fine bright seed from *Ceylon* and *Madras*, and 2*d.* per lb. for dull.

Areca.—Selling at very low prices, in consequence of the over-supply of the market. Most parcels offered to-day were bought in, but for 14 bags of fair quality from Ceylon from 10*s.* to 12*s.* per cwt. was accepted, a figure which tends to show that the rock-bottom price has scarcely been sounded yet.

Balsam Peru.—The demand has somewhat improved lately, but no quotable advance in prices has yet taken place. At the drug sales no interest was shown in Peruvian balsam, of which only one small lot was offered. This was bought in at 5*s.* 9*d.* per lb.

Balsam (Tolu).—Four cases of very common resinous stuff were bought in at 6*d.* per lb.

Benzoin.—*Siam* gum sold rather cheaply to-day; 10 cases of fine medium to bold glassy red-brown almonds in block brought 9*l.* to 9*l.* 5*s.* per cwt., and for a case of very fine bold pale loose almonds a bid of 18*l.* was refused, 20*l.* being the price suggested. *Sumatra* gum, of fine quality, continues in excellent demand, the best lots selling to-day at a further advance of about 15*s.* per cwt. upon the last sale rates; fine bright almondy seconds, well packed, realising from 10*l.* up to 10*l.* 7*s.* 6*d.*; ordinary seconds, with a few bold almonds, but very dark borders, from 95*s.* to 105*s.* per cwt. Of *Palembang* gum 44 cases sold, without reserve, at 36*s.* to 37*s.* per cwt.

Bleaching-powder.—Very firm at 9*l.* 5*s.* per ton on the spot.

Boldo-leaves.—A bale of genuine small pale greyish leaves was bought in at 7*d.* per lb.

Buchu.—Dull of sale, but held for steady prices. Twelve bales of long narrow leaves were all bought in at 10*d.* per lb., which is the price asked, and of 65 bales round leaves only three sold at 5*d.* per lb. for good bright green quality, after which the seller refused an offer of 4¾*d.* per lb.

Camphor (Crude).—At the end of last week further sales of 500 piculs *China* camphor were reported at the price of 105*s.* c.i.f. for October-December shipment, and at 106*s.* c.i.f. for near at hand.

Camphor (Refined).—Nineteen boxes of *Japanese* refined camphor in opaque 1-oz. blocks were bought in at to-day's auctions, two casks of 360 lbs. each; camphor bells were offered without reserve and sold at 1*s.* 6*d.* per lb.

Canella Alba.—Three bales small rather dull and broken quill were bought in to-day at 40*s.* per cwt. Ten bags low dark small split quill, offered without reserve, had to be bought in, as there were no bids, even at 1*s.* per cwt.

Cannabis Indica.—No demand. A parcel of 143 robbins from Bombay was all bought in at 5*d.* per lb. for fair tops, and 3*d.* per lb. for siftings.

Cardamoms were in rather moderate supply to-day, and about half the quantity offered sold at steady prices. The following prices were paid:—*Ceylon-Mysore*, fine pale medium to bold, 3*s.* 5*d.*; medium pale long and round mixed, 2*s.* 7*d.*; small pale long and round mixed, 1*s.* 11*d.*; ditto yellow, good full, 1*s.* 10*d.* to 1*s.* 11*d.*; partly split, specky and dull, 1*s.* 6*d.* to 1*s.* 8*d.*; small to medium fair brown, 1*s.* 8*d.* per lb. *Mangalore*, small to medium round fair yellow, 2*s.* 8*d.* per lb. Pale *Seed* realised 1*s.* 4*d.* per lb.

Cassia Lignea is still creeping upwards, further sales of about 1500 boxes good old quill being reported this week at from 35*s.* to 36*s.* per cwt. cash terms. At auction 330 bales partly broken cassia sold readily at 23*s.* 6*d.* per cwt. The market closes firm with buyers at 36*s.* per cwt.

Castoreum is exceedingly scarce. The annual Hudson's Bay auctions will take place about the middle of December, and in the meantime small stray lots offered realise enormous prices. At to-day's auctions a 3-lb. box dry seconds and thirds sold at 85*s.* per lb. net. Another lot of 31 lbs. was bought in at 85*s.* per lb.

Chillies.—A very dull market. The only business done at auction consisted of 30 bags yellow and dark mixed to fair *Sierra Leone* chillies at from 30*s.* to 35*s.* per cwt.

Chiretta.—Twenty bales of fair quality were bought in at 7*d.* per lb.

Cinchona.—The quantity to be offered at the London auctions next Tuesday consists of about 900 packages Ceylon and East India cinchona and 130 Cuprea and soft Columbian of very old import. Among the South American barks offered to-day were about 10 packages flat Bolivian *Calisaya*, which were bought in at prices ranging from 7*d.* to 1*s.* 7*d.* per lb., and an equal number of *Guayaquil*, which were also bought in at 10*d.* per lb. for long brown rusty quill. A few cases very heavy, fine mossy and silvery *East Indian* quills realised 1*s.* per lb., and 2 cases good quill brought 8½*d.* per lb.

Cinnamon remains in active request for arrival, further sales being reported at 6¾*d.* per lb., c.i.f. terms, for usual assortment, November–January shipment.

Civet.—The exports of civet from the port of Zaila on the Somali Coast (N.E. Africa), which is the chief place of shipment of this drug, amounted to 2,177*l.* worth in the year ending March 31, 1893, against 2,115*l.* worth in the same period of 1891–2.

Coca-leaves are in large supply, but the market is quite neglected. For fair to good strong brownish *Huanoco* leaves; 1*s.* 4*d.* to 1*s.* 6*d.* per lb. is asked, and for broken green *Truxillo* 1*s.* 2*d.* to 1*s.* 3*d.* per lb. Eleven cases fair hard grey leaves from Colombo were bought in at 10 per lb.

Cloves.—For 100 bales *Zanzibar* cloves on the spot, fair quality, 2¾*d.* per lb. was paid a few days ago. Since then, however, the market has "eased off," and sales have been made at 2¾*d.* per lb. for January–March, and 2½*d.* per lb. for March–May delivery. At auction 1,173 bales of Zanzibar cloves were offered and disposed of. No less than 1,090 bales of this quantity were offered without reserve. The whole parcel brought steady prices, ranging from 2½*d.* to 2¾*d.* per lb. for ordinary to good fair. *Penang* cloves remain dull of sale, only a few cases finding buyers at the auctions at 8*d.* per lb. for fair picked. Mouldy *Clove-stems* sold, "without reserve," at $\frac{3}{16}$*d.* per lb.

Colocynth.—The stock of *Turkish* apple has been much reduced lately, and holders generally are inclined to ask higher rates.

Coriander-seed continues to advance, and sales of about 150 bags *Mogadore* seed are reported at 23*s.* per cwt.

Cream of Tartar still continues to advance, and to-day's price asked from France is 66*s.* 6*d.* f.o.b. Bordeaux. The London quotation is still 70*s.* to 71*s.* per cwt. for best white French crystals, and 72*s.* for powder.

Croton Seed.—Six packages of small seed from *Ceylon* were sold to-day at 22*s.* 6*d.* per cwt.

Cubebs.—Whatever scarcity may have existed a short time ago (when it was said that, in spite of the fairly considerable stocks in existence, holders were unwilling to sell except at an advance) has been removed by the arrival of a consignment of 122 bags of cubebs from Singapore. Another lot of 14 bags fair bright genuine berries, not stalky, imported *viâ* Amsterdam, sold cheaply at 62*s.* 6*d.* per cwt.

Cumin-seed.—In strong demand at rather higher prices; 50 bags fair Malta seed realised to-day from 36*s.* to 36*s.* 6*d.* per cwt.; the price asked for 34 serons Mogadore is 24*s.* per cwt.

Cuscus.—Thirteen bales of fair quality at to-day's auctions brought no bids, and were bought in at 20*s.* per cwt.

Cuttle-fish.—For 19 packages fair pale *East Indian* bone 2*d.* per lb. was paid to-day. Nine cases damp, small and dark bone brought 1¾*d.* per lb.

Dragon's-blood. — Of 15 cases shown to-day one soft and dusty lump of fair colour sold at 6*l.* 7*s.* 6*d.* per cwt. For another lot, a much better colour, from Singapore, a bid of 8*l.* 15*s.* per cwt. was refused.

Ergot.—A parcel of 10 cases fair Spanish ergot of the new crop was offered without reserve, and sold cheaply at 1*s.* 1*d.* to 1*s.* 1½*d.* per lb., one lot realising 1*s.* 2*d.* per lb. Another lot of 24 bags could find no buyers at the "reduced limit" of 1*s.* 2*d.* per lb. Russian and German ergot were not offered to-day.

Galls (Turkey).—The market in *Bassorah* galls is very firm, with a rising tendency, several holders standing out for higher prices than those at present obtainable. Sales are reported at prices ranging up to 59*s.* for good blue and 49*s.* per cwt. for good green ditto.

Gamboge.—A parcel of 47 cases imported *viâ* New York sold rapidly at a decline of from 2*s.* 6*d.* to 5*s.* per cwt. all round, 11*l.* 15*s.* to 11*l.* 17*s.* 6*d.* being paid for small to medium pipe, partly cakey, of fair bright fracture, and 10*l.* 2*s.* 6*d.* to 10*l.* 5*s.* for duller, partly ricey pipe.

Ginger.—*Cochin* ginger is very flat, 150 bags medium and small washed rough selling with difficulty at 38*s.* to 39*s.* per cwt. at auction, while the better grades were all bought in. A parcel of 16 cases mouldy limed *Japan* sold "without reserve" at 47*s.* per cwt. *Jamaica* very firmly held, with small sales of low medium to bright medium washed at 71*s.* to 75*s.* per cwt.

Guaiacum.—Of 15 boxes offered to-day 5 sold at 1*s.* 3*d.* per lb. for fair, almondy, mixed block, and at 9½*d.* to 1*s.* for common, dusty, woody and broken ditto.

Gum Acacia.—In addition to the business transacted in *Soudan* gums at last Thursday's auctions, we hear of sales having been made privately at from 41*s.* for good hard to 52*s.* 6*d.* for fine pale soft. *Talca* and *Gehzirah* gums are scarce and inquired for. Two packages medium to bold picked yellow drop from *Alexandria*, offered without reserve, did not realise more than 85*s.* to 87*s.* 6*d.* per cwt.; for one case of fine pale picked *Trieste* drop, a bid of 8*l.* was refused; 9 serons *Soudan* sorts were bought in at 45*s.* per cwt.

Gum Ammoniacum.—Seven cases of good sorts, partly fine pale tears, partly blocky and seedy, were bought in at 50*s.* per cwt.

Gum Asafœtida.—The chief feature of interest at to-day's auctions was the sale of 199 cases of this gum, just imported from Bassorah. The market for asafœtida having been very bare for a long time, the parcel was strongly competed for by home, continental, and American buyers, and the whole of it was disposed of at exceedingly high prices for the finer qualities, but at a decided decline for the more common grades. The following prices were paid:—Half blocky, half loose, grey almonds, slightly pinky, fair, dry, slightly sandy 91*s.* to 95*s.*; good soft pinky block, 93*s.*; soft pinky mass, 81*s.*; medium grey, partly slightly pinky, mostly in block and rather soft, from 83*s.* to 89*s.*; half block, half loose, red and grey mixed sandy, from 79*s.* to 84*s.*; ditto, partly soft, from 73*s.* to 75*s.*; pale and grey, very sandy, half blocky and half loose, 66*s.*; loose and block mixed, grey colour, slightly pinky edges, all more or less sandy and stony, from 64*s.* down to 40*s.*; commoner grades, from 36*s.* down to 27*s.* per cwt. The present is the usual time of the year for the arrival of the new asafœtida crop.

Gum Elemi.—Ten cases fair palish *Manila* gum, offered to-day, were all bought in at 42*s.* per cwt.

Gum Kino.—Two cases of fair quality, shown to-day, are limited at 20*l.* per cwt.

Gum Sandarac.—Twenty-six casks sold cheaply to-day without reserve at 64*s.* to 66*s.* for rather dusty yellow, and 57*s.* for more ordinary quality.

Gum Tragacanth.—Very slow of sale at 13*l* per cwt. for fine first *Bagdad*; 11*l.* to 12*l.* per cwt. for fair to good curly seconds; and 10*l.* to 11*l.* 5*s.* for thirds. *Syrian* hog gum has been sold at 55*s.* per cwt. in small quantities.

Honey.—*Jamaica* honey is rather firmer in price, about 12 packages ordinary candied, dull in colour, selling at from 25*s.* 6*d.* to 27*s.* 6*d.* per cwt. A parcel of 15 barrels *Cuba* honey sold cheaply at from 18*s.* 6*d.* for thick, rather dirty candied, up to 25*s.* for fair quality. The *Chilian* honey offered was all bought in, fine pale hard at 42*s.* 6*d.* to 44*s.*; and of *Californian* 55 cases very clean yellow liquid, which have been offered repeatedly, were again bought in at 45*s.* per cwt.

Insect-flowers.—The Trieste market keeps exceedingly, firm, *closed* flowers being now quoted, according to quality, at from 105*s.* to 130*s.* per cwt., and half-closed at 80*s.* per cwt. f.o.b. Trieste.

Ipecacuanha.—Of *Brazilian* root, 63 packages were offered to-day, of which 24 sold at a decline of from 2*d.* to 3*d.* per lb; ordinary wiry to fair annulated sound at from 4*s.* 3*d.* to 5*s.* 2*d.*; first-class damaged root at 4*s.* 4*d.* to 4*s.* 9*d.* per lb. Of 9 packages *Cartagena* root four found buyers at fairly steady rates—viz., 2*s.* 10*d.* to 3*s.* 9*d.* for common dusty to good, partly stout, but damaged root.

Jaborandi.—There has been another arrival of 16 bales jaborandi-leaves from Maranham to Liverpool.

Kola.—Of 21 cases shown to-day only 5 sold at 6½*d.* to 7½*d.* per lb. for good, bright, partly mouldy, West Indian kolas, and at 2*d.* per lb. for common dark quality.

Lovage-root is exceedingly scarce and will be so until the new season's root comes in. The coming crop, however, is said to promise very well.

Matico.—Seven bales genuine bold, but rather dark, leaves were bought in to-day at 4*d.* per lb.

Menthol has now risen to 14*s.* 6*d.* per lb., which is even said to have been paid for a small lot.

Morphia.—The market is flat, and it is said that one of the makers has been quoting rather lower prices recently than the others.

Musk.—Quite neglected. At to-day's auctions about 36 packages of *Tonquin* pods were offered, but not a single one of these was sold; first and third pile pods were all bought in at nominal prices, and the only actual business done consisted of 2 packages of empty pods, which sold at 11*d.*, and trimmings, which brought 4*d.* per oz.

Myrrh.—The demand is not very brisk; fine pale sorts are held at from 90*s.* to 92*s.* 6*d.*, and it is even said that some sales were made at the latter price. Four cases good clean small siftings brought 75*s.*, and 8 bales pickings 43*s.* per cwt.

Nux Vomica.—Of 172 bags shown to-day 25 sold at 7*s.* 6*d.* to 9*s.* for rather dark to fair small seed from Ceylon.

Oils (Essential).—There is very little change in the essential-oil market this week. Japanese oil of *Peppermint* remains exceedingly firm, and although a few cases of dementholised oil were bought in at auction to-day at 7*s.* 9*d.* per lb., we believe that a much higher price has been paid privately for good quality. Of *Ylang Ylang* 24 bottles of good quality were bought in at 6*s.* per oz. East Indian *Geranium* oil was bought in at 6*d.* to 8½*d.* per oz, and 2 cases hand-pressed oil of *limes* from Dominica, at 10*s.* per lb. Several parcels of oil of *Lemon* and *Bergamot* were offered, one of the former being catalogued as "Hamnett's" brand. The agent of that firm, however, wrote to the selling broker to disclaim connection of his principal with the oil in question, and it then transpired that the broker's principals could not substantiate their assertion. It was therefore announced from the pulpit that the oil would not be sold as "Hamnett's," but only according to sample. No bids were made for it, however. Another parcel of 5 coppers, said to be prepared by Giovanni de Angelis & Co., sold, "without reserve," at 6*d.* per lb. Several parcels of good white *Nutmeg oil* were offered at to-day's auctions, but no sales whatever were effected, the whole being bought in at 4*d.* per lb. nominally. Of *Cajuput* oil 10 cases, each of 27 bottles, were bought in at 2*s.* 9*d.* per bottle. *Cassia oil* is dearer. At to-day's auctions none was sold, but privately business has been done on the spot at 3*s.* 2*d.* to 3*s.* 3*d.* per lb.; and at 2*s.* 10*d.*, c.i.f. terms, for shipment. For *Star anise* oil 5*s.* 6*d.* per lb., c.i.f., has been paid.

Opium.—The London market keeps steady, with a fair demand for "soft-shipping" and druggists' opium at firm prices. The current quotations are as follows:—Good to fine *Soft-shipping*, 13*s.* to 14*s.*; good to fine *Druggists'* kinds, 11*s.* 6*d.* to 12*s.* 6*d.*; seconds ditto, 9*s.* 6*d.* to 10*s.* 6*d.*; ordinary to fine *Constantinople*, 11*s.* to 12*s.* 6*d.* per lb. Fine *Persian* opium is held at from 11*s.* 6*d.* to 12*s.* per lb.; and common grades from 9*s.* per lb. upwards. Writing on October 14, our Smyrna correspondent reports:—"During the past and present weeks there has been a total absence of business in our opium market, in spite of the fact that small needy holders are becoming anxious to sell, and have to-day offered opium at a reduction of about 5*d.* per lb. under the current quotations. It looks as though no business to speak of will take place here for some time, and it is therefore highly probable that prices will be run down to 10*s.* to 10*s.* 3*d.* per lb. for usual run talequale, old or new, provided we have some rain before the month is out. Rain is now very much needed to ensure the success of the autumn sowings." A report from another source confirms these statements, and even indicates that, unless American orders come in, a general decline of 1*s.* per lb. may be expected. The statistical position of the article is, however, entirely opposed to this state of the market; the arrivals in Smyrna, for instance, since the opening of the season, have only been 660 cases, against 3,025 in the corresponding period of 1892. It is reported to-day that, owing to the failure of a large Constantinople banking firm which is believed to have been intimately connected with the opium market, prices in Smyrna and Constantinople have fallen to the extent of about 7*d.* per lb.

Orange-peel.—Fourpence per lb. was accepted for 1 package of good bright peel, which was sold without reserve. Ordinary to fine bright Malta strips were bought in at 6*d.* to 1*s.* per lb.

Orris.—*Mogadore* root firmly held, but not in strong demand, 6 serons of good bright quality were bought in at 34*s.* per cwt. Seventeen bags Italian were bought in at the rate of 105*s.* for good, bold, pale Florentine.

Patchouly.—A parcel of 10 bales good brown leaves, containing very little stalk, from Penang, was bought in at 5*d.* per lb.

Potash Salts.—Bengal *Saltpetre* remains firm, but quiet. Sales for November-December shipment have been made at 17*s.* 6*d.* per cwt., and on the spot fine quality may be had at 18*s.* per cwt. Montreal *Potashes* have advanced to 26*s.* per

cwt. in Liverpool; but *Pearlash* is still offering there a 42*s.* 6*d.* per cwt. *Chlorate* is easier, and offers at 8*d.* per lb. for spot and November delivery, 7⅞*d.* for December, 7¾*d.* for January, 7½*d.* for January-June, and 7¼*d.* for delivery all over 1894.

Quassia.—Logs have been sold privately lately, at the low price of 4*l.* per ton.

Quicksilver is firmly held at 6*l.* 10*s.* per bottle from the importers, and 6*l.* 8*s.* 6*d.* in second hand.

Quinine.—The market keeps very firm, but quiet. The only business reported this week is a sale of 5,000 oz. second-hand German bulk, at 9¾*d.* per oz. Two parcels were offered at to-day's sales, one of these consisting of 7,000 oz. of *Whiffin's* brand, in 100-oz. tins, was bought in at 10½*d.*, an offer of 10*d.* being rejected; for the other lot of 4,500 of the *Brunswick* quinine, also in 100-oz. tins, a bid of 9⅞*d.* was rejected.

Rhubarb.—In fair supply. The demand remains as slack as ever, and only about 21 cases sold at 1*s.* 1*d.* per lb. for good small to medium fair-coated *high-dried* of fair fracture, and 1*s.* to 1*s.* 1*d.* per lb. for round and flat rather common *Shensi* of fair fracture, and 2*s.* 2*d.* for good round Shensi of pinky fracture.

Sarsaparilla.—Ten bales *Mexican* root sold to-day at 5½*d.* per lb.; while for sound *Grey Jamaica* 1*s.* 4*d.*, and for damaged ditto, 1*s.* 1*d.* to 1*s.* 3*d.* per lb. was paid.

Senega-root has advanced. Sales have been made here during the week at 1*s.* 10*d.* per lb., and now 2*s.* is asked. At auction 4 cases were shown, but they were reported to have been sold privately, and therefore not offered.

Senna.—Several parcels of *Tinnevelly* leaves were shown to-day, the total amounting to about 450 bales, the whole of which sold at firm to rather higher rates; good to fine bold green leaves realising 5½*d.* to 8¼*d.*; medium to good fair green, 4¼*d.* to 5¼*d.*; ordinary to fair medium yellowish mixed 2*d.* to 4*d.*, and common specky and small to very low from 1¾*d.* down to ¼*d.* per lb. One lot of 21 bales sold at 5*s.* for the whole lot, weighing about 2 tons. *Alexandrian* senna slow of sale and much neglected. The only business done at to-day's auctions was a sale of one case small leaf at 5*d.* per lb.

Shellac.—The market closed last week with a very quiet tone, *garnet* AC selling at 94*s.* per cwt., while *second orange* (TN) was being offered freely at 104*s.* 6*d.* per cwt. for November delivery. At auction on Tuesday only 496 packages (consisting of 287 cases *orange*, 145 cases *garnet*, and 64 cases *button* lac) were offered. The demand was very sluggish, and only 114 cases sold at unaltered rates for all kinds, excepting blocky button lac, which was lower. The following figures were paid:—*Second orange*, ordinary livery to fair reddish unworked, 5*l.* 2*s.* 6*d.* to 5*l.* 5*s.*; *garnet*, cakey unworked OCC, 100*s.* per cwt. The speculative market has been dull, at unchanged rates, throughout the week.

Soda Salts.—*Nitrate* is firmly held at 9*s.* per cwt. for ordinary or refined on the spot. *Soda crystals* are very firm the price in London, ex ship and from the local makers' being 60*s.* per ton, and on the Tyne 48*s.* 6*d.* to 50*s.* f.o.b., while for export to Russian and other Northern ports 45*s.* f.o.b. is quoted. *Caustic soda* has further advanced; 76–77 per cent., on the Tyne, is now held for 11*l.* 10*s.* per ton, f.o.b.; 70 per cent. at 10*l.* 5*s.*, f.o.b. Tyne; 10*l.* 15*s.* f.o.b. for prompt, and 8*l.* 15*s.* for 1894 delivery in Liverpool, and 10*l.* 15*s.* on the spot in London. The price of 60-per-cent caustic, f.o.b. Liverpool, is 10*l.*

Sticklac.—At auction on Tuesday 12 cases good clean *Siam* sticklac, in grains, sold at from 49*s.* to 53*s.* per cwt., and siftings at 14*s.* 6*d.* per cwt.

Tonquin Beans.—The market is very well supplied, but most of the qualities offered are rather common. Of 51 cases very foxy Para beans shown to-day, 45 sold at from 8½*d.* to 10*d.* per lb., a decline of about 3*d.* per lb.

Vanilla.—About 700 packages were offered to-day, and of these two-thirds sold at steady rates for the better qualities, at a decline of 6*d.* to 1*s.* on short beans. At first, competition was very good, but towards the end it became less lively. Good fresh chocolate sold at 8*s.* to 10*s.*; medium to good slightly crystallised, 3½ to 7 inches, at 3*s.* to 9*s.*; common foxy and rough at from 1*s.* 3*d.* to 4*s.* per lb.

Wax (Bee's).—Firm. *Jamaica* in small supply and selling readily at 7*l.* 5*s.* to 7*l.* 12*s.* 6*d.* for medium to good red mixed; 72 packages good *Madagascar* realised 5*l.* 17*s.* 6*d.*, 3 packages good bright *Australia* 6*l.* 2*s.* 6*d.*, and five packages yellow *Syrian* from 6*l.* to 6*l.* 2*s.* 6*d.* per cwt.

Wax (Japan).—Sales of ordinary yellow to medium were made to-day at 33*s.* 9*d.* to 34*s.* per cwt. Privately 32*s.* 9*d.* c.i.f. terms has been paid for 100 cases September-October steamer shipment, and now 33*s.* 6*d.* is asked.

THE LIVERPOOL MARKET.

Cascarilla.—Ten bales dusty small sold at 19*s.*

Guinea-grains.—Several parcels have changed hands during the week at 20*s.* per cwt., at which holders are very firm.

Gum Acacia.—Business has been rather idle, but there is renewed inquiry at the close, and prices generally are very steady.

Honey.—More business has been doing in *Chilian*; some good colour Pile X, but rather smoky, sold at 34*s.* *Californian* is unchanged at 42*s.* 6*d.* for good pale liquid.

Oil (Castor).—Still flat and lifeless. Present value of good seconds *Calcutta* being 2 11/32*d.* to 2 7/16*d.* First pressure *French* has improved, and holders now talk of 2 9/16*d.* to 2⅝*d.* per lb.

Quillaia.—Sales continue to be made at 15*l.*

Seed Fenugreek.—Sales of brown *Alexandrian* at 8*l.* per ton.

Wax (Bees).—The steady demand is sustained, and sales of *Chilian* have been made at 7*l.* to 7*l.* 12*s.* 6*d.*, according to grade.

Wax (Carnauba).—Grey has been sold at 47*s.* 6*d.* per cwt.

THE NEW YORK DRUG MARKET.

(*Telegram from our Correspondent.*)

New York, October 26.

Senega-root has advanced again. The price is now 45 cents per lb. here for good bright quality.

THE AMSTERDAM MARKET.

Amsterdam, October 19.

The cinchona auctions to be held in Amsterdam on November 9 will consist of 4,610 bales and 292 cases, or about 420 tons weight of bark, divided as follows:—From Government plantations, 344 bales and 17 cases, about 33 tons; from private plantations, 4,266 bales and 275 cases, about 387 tons. This quantity contains: Of druggists' bark—*Succirubra*, quills, 194 cases; broken quills and chips, 166 bales and 98 cases; root, 107 bales. Of manufacturing bark—*Ledgeriana*, broken quills and chips, 2,859 bales; root, 847 bales. *Hybrids*, broken quills and chips, 580 bales; root, 33 bales. *Officinalis*, broken quills and chips, 15 bales; root, 3 bales.

Phenosalyl is a mixture of phenol, salicylic, and lactic acids. It is prepared by mixing them together at a temperature of 140° C. Menthol and eucalyptol are then added, and, after cooling, the whole is mixed with four times its bulk of glycerine. As an antiseptic it is considered to be of value in the treatment of uterine disorders, in gonorrhœa, and as a wash for rectal sores.

Memoranda for Correspondents.

In letters for publication correspondents are requested to express their views as concisely as possible.

Correspondents should write on one side of the paper only, and devote a separate piece of paper to each subject of inquiry.

The name and address of the writer should accompany all communications with, if desired, a distinctive nom-de-plume.

Adeps Lanæ v. Lanoline.

Sir,—Messrs. Benno Jaffé & Darmstaedter's letter in your issue of October 14, page 584, induces us to publish the following corrective remarks:—

The High Court at Celle has in no way confirmed an alleged opinion of the Court at Hannover tending to the effect that Messrs. Jaffé & Darmstaedter had succeeded in proving an infringement on our part of their patent-rights.

On the contrary the High Court has quashed the judgment of the preceding lower Court which carried the injunction that we should be forbidden to publish the fact that by mixing our Adeps Lanæ with medicinal solutions, or mixing any other fat and then adding water, the result is *not* Lanoline.

Everybody versed in the matter will easily understand that the opinion of our adversaries embodying the principle that their Lanoline patent-rights extend to the mixture of any purified woolfat with any aqueous solution, or to the manufacture of any woolfat preparation for medicinal, cosmetic, or industrial purposes, is entirely erroneous.

The controversy in question has never been before the highest Court—the Reichsgericht at Leipzig—yet, and as we read some respective remarks in Messrs. Jaffé & Darmstaedter's concluding sentence, which might tend to mislead people into the belief that the said highest Court has previously decided in their favour as regards the question at issue, we beg to state this fact accordingly.

Yours truly,
Norddeutsche Wollkaemmerei & Kammgarnspinnerei.

The Major Questions.

Sir,—I am rather interested in this chemistry question. You have had five replies, and there are two characteristics common to the answers and to the answerers—namely, (1) that the latter are all so cocksure about their methods and results, and (2) that every one of the answers is wrong. You have got the percentage of KCl stated as 3·915, 4·00, 4·055, and 4·075. It is true that the difference between the lowest and the highest is not very great, but it is equally clear that not more than one of the answers can be right, and in an examination-paper the question of correctness or incorrectness ought to count for something. As it happens, all the answers, in my humble opinion, are wrong.

I make out that the percentages stand thus:—

KCl	4·0524
KBr	95·9476
	100·0000

This answer is absolutely correct to the *third* place of decimals, and any variation from these three decimals is *wrong*. You will observe that if Messrs. Kirkby and Brown work out their figures to the third place of decimals the "proof" is quite useless, and none of the others attempt to bring out the absolute figures. In my opinion it is impossible to do the question *correctly* without algebra, and the fact that four arithmetical attempts are all wrong goes far to prove this. It would be interesting to know the answer expected by the examiners.

As to the physics question, I notice it was solved by one precocious youth "without no help." I wonder how he would have fared "without *any* help." But why not give us the answer? I happen to know of three budding chemists—all Minor men, too—who tried it, and each, working independently, arrived at 24·6° C. as the answer. Is this correct or not? If not, what is the correct answer? and does that answer involve a palpable absurdity and impossibility, or is the question a possible one in actual experimenting?

Yours,
Querist. (149/54.)

Sir,—A sample of KBr containing KCl. ·2 gramme sample required 17·2 c.c. $\frac{N}{10}$ $AgNO_3$ solution. Find amount of KBr and KCl.

My method of solving this problem differs from those already published, and the result also differs; and yet I think my method is correct.

Taking the figures given by Mr. Kirkby last week, it appears that if the KBr had been pure it would have required—that is, it would have been equivalent to—16·8 c.c. $AgNO_3$. If it had been all KCl it would have been equivalent to 26·8 c.c. $AgNO_3$. The mixture is found to be actually equivalent to 17·2 c.c. For arithmetical purposes we may take the KBr as = 16·8, KCl 26·8, and the mixture = 17·2.

It is evident that whatever proportion of the 16·8 is taken away, the same proportion of the 26·8 is substituted. Let x be the quantity deducted from the 16·8. Then as the mixture yields 17·2, $x + 4$ must be the quantity of the 26·8 (KCl); and so x is to $x + 4$ in the same relation as 16·8 is to 26·8—that is, as 1 is to $1\frac{100}{168}$ or $1\frac{25}{42}$. Therefore, ·4 is $\frac{25}{42}$ of x, from which we find that x = ·664, which represents the deduction to be made from the 16·8, and 1·064 would be the equivalent of the 26·8. The quantity of chloride in the question would, therefore, be as much as would require 1·064 c.c. $\frac{N}{10}$ $AgNO_3$ solution, so that 1·064 × ·00745 = ·07926 gramme, the amount of KCl in the ·2 gramme of sample—*i.e.*, 3·96 per cent., or $\frac{100}{168}$ of 1·064 = 3·95.

Yours truly,
Cocker. (149/93.)

Sir,—The clever replies to the KBr question which appeared in your journal last week, almost convinced me that chemical law can be squared to arithmetical rule, and I suppose that the Board of Examiners were as satisfied as I was, for a time, that it is possible to answer the question by working out the problem on paper. I have never met with any analyst who does that when he has an impure specimen of bromide of potassium to deal with. No further back than the British Pharmaceutical Conference at Edinburgh, one of the examiners, Mr. D. B. Dott, read a paper on this subject (referred to by "Ph.C." on October 14), and he apparently was not satisfied that a mixed sample could be estimated volumetrically, for he used the fusion and chlorine process to get directly at the amount of chloride present. Why should all this trouble be taken when a simple rule-of-three sum would, according to Mr. Kirkby and others, settle the matter? The fact is, of course, that the arithmetical solution is wrong. It starts from a false factor—viz., the difference between pure KBr, and the volume of $\frac{n}{10}$ silver nitrate used for the impure sample. It is assumed in the replies of last week that the sample contains 100 per cent. of KBr *plus* 4 per cent. of KCl; then by deducting the 4 from the 100, we are to suppose that the thing is squared. The answer is ingenious and approximately correct, but as it is based on a fallacy, or guess as you have called it, it is in strict chemistry wrong. The curious point about the solutions by Mr. Kirkby and others is that the same principle is followed, but they give different workings and different answers. They will all see on consideration, I am sure, that their ingenious solutions of the problem do not take us beyond the hypothetical difference between the known and the unknown. The same also applies to the algebraic solution by "Ph.C."

Yours faithfully,
A. M. W. (22/103.)

Humours of the Wholesale Trade.

A wholesale man writes:—"It was not a playfully polyglot customer who recently ordered a wholesale house to furnish him with a bottle of 'Pommade Ung. Grease.' We com-

plied, rightly, as it transpired, with the unctuous request. The ingenious man got Pommade Hongroise."

Lin. Terebinthinæ.

SIR,—In reply to "Denton," in your last issue, you state that lin. terebinth. should be of creamy consistence. If the B.P. order of mixing be reversed—*i.e.*, the turpentine, with the camphor dissolved in it, mixed with the soap, and then diluted with water, a fluid emulsion is the result.

In a recent examination in Edinburgh, a candidate had ℥ij. lin. terebinth. to make, and the examiner stated that a man would be a fool who did not add more water to the liniment than the B.P. ordered. Therefore, how should it be turned out—in W.M. bottle and creamy consistence, or ordinarily? Should the foregoing be regarded as private opinion, or as authority, coming as it did from one of the examiners in dispensing? JACK POINT. (152/29.)

["A thin, syrupy, opaque liquid" was the consistency arrived at by an examiner writing to us in 1886. There was much discussion on the liniment subsequent to that, and the late Professor Redwood read a paper on the subject to the Pharmaceutical Society. This did not allay criticism, and then followed a lengthy correspondence in THE CHEMIST AND DRUGGIST. Professor Redwood replied to this in our issue of June 11, 1887, and he stated then that the "liniment is a semi-fluid emulsion, which pours readily from an ordinary bottle." In regard to the remark by the examiner we cannot do better than quote Professor Redwood's words from the same letter:—"I do not consider that any individual, not even the Pharmacopœia Committee, can authorise a departure from clearly-defined instructions of the Pharmacopœia, as passed by the Medical Council. I greatly regret that any member of our body should advocate such departure."—ED.]

Warning.

SIR,—It having come to my knowledge that a party is again representing himself to be my son, and imposing upon firms with whom I do business, I beg to caution the wholesale houses against having any dealings with such person, his statements being absolutely false.

58 Hanover Street, Liverpool. J. THOMPSON.

Another case has been reported to us of a young man calling on a London firm, falsely representing himself to be a son of Mr. Boyd, of the firm of Boileau & Boyd, of Dublin, and asking for a loan.

DISPENSING NOTES.

Correspondents should consult "The Art of Dispensing" in regard to dispensing difficulties. Difficulties not explained therein may be sent to the Editor, who invites a general expression of opinion upon the undermentioned topics.

Mixture of Mercuric Iodide.

133/30. *Unqualified* wishes to know if it would be permissible, in the mixture sent by "Cascara," page 519, September 30, to dissolve the hydrarg. iod. rub. by means of a minute quantity of potas. iodide. It would be a useless departure from the terms of the prescription, on account of the presence of sodæ bicarb., and would still require a "Shake the bottle."

Antipyrin and Salicylate-of-Soda Powders.

134/15. X. had these to dispense:—

Antipyrin.	gr. x.
Sodii salicylatis	„ xx.

M. Ft. pulv.

As he dispensed them they invariably deliquesced although mixed lightly and wrapped in waxed paper. When dispensed at a large establishment they were said to be all right.

[According to the researches of Prudhomme and Vigni some years since, it was found when these two substances were mixed together, some decomposition took place, an oily liquid being formed, and it was then recommended that they be dispensed in solution, when the change is not supposed to take place. Under these circumstances the smaller establishment may consider the powder was dispensed correctly, and the change was only what might be expected.]

Potass. Iod. and Ol. Terebinth.

SIR,—The following mixture—

Conf. terebinthinæ	ʒj.
Pot. iodid.	ʒss.
Vin. ipecac...	♏j.
Mellis	℥j.
Aquam ad	℥viij.

M.S.A.

after being dispensed a couple of hours or so, gradually turns from its yellowish colour to that of black or bluish black.

Can you explain the matter, as a friend has dispensed it, and it does *not* change colour. IODIDE. (148/33.)

[Turpentine which is old contains hydrogen peroxide, and this reacts with potassium iodide, ultimately liberating iodine.]

Pulv. Trag. Co. in Mixtures.

SIR,—When pulv. tragacanth. co. is prescribed, as in the following mixture, should it be treated with boiling water or not?—

Tr. digital...	♏ss.
Bismuth. subnitrat.	ʒiv.
Liq. strychniæ	♏ lxx.
P. tragac. co.	ʒj.
Aquam ad	℥vj.

M.

Sig.: ʒij. t.i.d. p.c.

J. A. D. (153/18.)

[That would be ridiculous, as the starch would be gelatinised, which is not intended. Simply rub the powders together with cold water.]

Quinine Powders.

SIR,—When quinine is ordered in powders should it be dispensed in its usual state or rubbed down to a fine powder?

INQUIRER. (144/64.)

[We do not think there is a rule on this point, but unquestionably the correct method is to rub the salt to powder. When the prescriber writes "Fiat pulvis" the dispenser has no option in the matter—strictly speaking, the salt must be powdered.]

LEGAL QUERIES.

Immediate information on pharmaco-legal matters is available in "Pharmacy and Poison Laws of the United Kingdom," Alpe's "Handy-book of Medicine-stamp Duty," and THE CHEMISTS' AND DRUGGISTS' DIARY, *page* 152 *et seq.*

135/55. *Vino.*—You may not sell intoxicating liquors except within the hours specified for their sale. Licensed victuallers are not allowed to sell anything outside those hours on any part of licensed premises; but this does not apply to shopkeepers in regard to other goods.

138/4. *Podophyllin.*—The High Court has decided that chlorodyne cannot be sold by an unregistered person. It does not necessarily follow from this judgment that all medicines into the composition of which some scheduled poison enters are in the same position. That question is in dispute in pending cases. We do not catch the purport of your other question. The medicine-stamp does not show that the medicine has been patented.

139/29. *Lexicon.*—There are numerous decisions about alterations in wills, but the result of them is that an altera-

tion in a will, if unattested, does not have any legal effect. Declarations made by the testator after the will is executed cannot be received in evidence. See *re* Adamson, L.R. 3, P. & D. 253, so that part of the affidavit cannot be legally received by the court. If the executors do not pay over the legacy the legatee had better commence an action against them in the Chancery Division. With regard to the loan from deceased on a promissory-note, if the testator cancels the debt, he cancels the whole debt due at his death. That would include principal and interest.

143/28. *Alpha.*—To carry on a pharmaceutical business in Italy it is necessary to acquire the Italian diploma. Some particulars of the curriculum will be found in an article published in this journal of May 20 last.

145/58. *Simplex.*—In strict law it is not legal for an unregistered person to describe himself as a wholesale druggist, though he may do a wholesale druggist's business. We do not make out exactly what you want to do in the company case, but advise you to get a solicitor to draw up the articles for you. He will advise you as to the point.

138/43. *Registrar.*—(1) The register of Chemists and Druggists is published about January or February each year. (2) An unqualified person employed by a doctor cannot dispense prescriptions containing poisons. (3) See Alpe's "Handy-book" in respect to all medicine-stamp difficulties.

147/6. *Dollars.*—The Pharmaceutical Society can probably enforce a penalty against anyone who, not subscribing to that Society, uses the description "Associate of the Pharmaceutical Society." (See sections 6 to 12, Pharmacy Act, 1852.) They can certainly stop such infringement of their rights. (Section 20 Pharmacy Act, 1868.)

146/59. *J. T.*—Your label renders the essence liable, because you state its medicinal uses.

147/32. *Cordials.*—You can only sell orange-bitters under a spirit-licence if it contain over 3 per cent. of proof-spirit.

MISCELLANEOUS INQUIRIES.

The Editor replies to queries of general interest, in the order in which they are received. Replies are inserted according to the space available. Postal answers cannot be supplied.

Back numbers, containing formulæ, educational or other specific information can be obtained from the Publisher.

133/3. *Assistant.*—There are no Preventives of Chilblains otherwise than keeping the general health good, plenty of outdoor exercise, cold baths with friction, liberal dieting, cod-liver oil, Easton's syrup, or syrup of hypophosphites, &c. For Cures, see formulæ published on page 408, September 9, 1893. Various other remedies have been recommended—iodine, cantharidis, and opium-liniment, &c.

65/26. *F. B.*—For Sulphur Skin-lotion, see *C. & D.*, April 29, page 607. The following is another formula:—

Zinci sulphocarbol.	℈j.
Zinci oxidi	ʒij.
Sulphur præcip.	ʒj.
Carmin.	gr. j.
Aq. coloniensis	ʒvj.
Glycerini	ʒvj.
Aquæ rosæ ad	℥vj.

Triturate the carmine with the sulphocarbolate and the other powders; then add the liquids in their order.

Have you not observed the other formulæ in our correspondence columns quite recently?

145/46. *Syrupus.*—We do not know of any such book.

144/57. *Ghatti.*—Instead of using wines in the cough-mixture use tinctures. They do not ferment so readily as the former. Dissolve the ghatti gum in 2 oz. of lime-water. Add 10 grains of benzoic acid to the mixture, dissolving it in 1 oz. of rectified spirit. You do not tell us the dose. If you carry out these suggestions, let us know your results.

141/39. *W. F. L. & Son.*—(1) Liquid Glue.—See *C. & D.*, December 24, 1892, page 915. We question if you can do better than buy fish-glue in bulk. (2) Wheat-protective.—Sulphate of copper (common) coarsely powdered, and a dash of crude carbolic acid added to it.

142/74. *Pucr.*—Liquid Rouge:—

Carmine	ʒj.
Solution of ammonia	ʒiss.
Glycerine	ʒiij.
Essence of white rose	ʒj.
Water to	℥iv.

Rub up the carmine with the ammonia and glycerine, add an ounce of water, and heat to drive off traces of ammonia. When cold, add the essence, make up to 4 oz., and filter.

143/70. *Nemo.*—(1) We do not understand the sign used by the doctor, but you cannot be wrong in giving 2 oz. of "acid. boric. subtl. pulv.," as the patient has to use a teaspoonful at a time. (2) "D.S.A., L.Ch. by Examination."—The latter may be Doctor of Chirurgery, granted by Irish colleges, but it is rarely used. It may also stand for "Dental Chirurgeon." We suspect, however, that the quoted letters are of little value.

INFORMATION SUPPLIED.

134/40. "Tincture of Indian Bark," formerly known as Indian Brandee.—Mr. Alex. Chisholm, 104 Addey Street, Sheffield, sends the following:—

Tr. card. co.	ʒj.
Tr. capsici	ʒij.
Tr. rhei	ʒj.
Tr. myrrhæ	♏xlv.
Sp. æth. nitr. (·850)	℥v.
Golden syrup (coloured with sacch. ust. q.s. and thinned in aqua ℥v.) ad.	℥xxxij.

Dose—ʒss. to ʒj., for slight bowel complaints.

Retailed at 3*d.* oz., wholesale 2*s.* 8*d.* lb. for small shops.

Indian Bark.—In reply to your correspondent's query 134/40, as to what is the composition of Indian bark, I beg to say that it is a well-known mixture in this part of Yorkshire. It is largely sold for diarrhœa and abdominal pains. A good recipe is the following:—

Tinct. rhei co.	℥iv.
Sp. ætheris nit.	ʒss.
Tinct. capsici	ʒij.
Sp. etheris. s.	ʒiij.
Syr. simp. ad	℥x.

M.

Dose: For diarrhœa and pain, ʒij. om. semihora until relieved. As a stomachic and tonic, ʒj. t.d.s. in water.

Dewsburian. (151/76.)

*** *A considerable number of replies to correspondents are held over owing to pressure on our space.*

MARRIAGE.

Hobbs—Warwick.—On October 5, at St. John's Church, Upper Holloway, by the Rev. J. P. Faunthorpe, Principal of Whiteland's College, Chelsea, Alfred Ernest Hobbs, pharmaceutical chemist, of Bournemouth, to Mary Octavia Warwick, eldest daughter of the late William Warwick, of Saltwood, Kent.

DEATH.

Atherton.—On October 22, at Tunbridge Wells, Kate Florence, the beloved wife of Albert G. Atherton, chemist and druggist, 30 Pantiles, Tunbridge Wells, and younger daughter of the late Frederick Kingsbury, Esq., Cecil Street, Strand, W.C.

Pears' Soap

(25 inches high.)

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King Henry VIII.

"**LEICESTER** may be regarded as the Headquarters of the Pill Industry in England."—*Chemist and Druggist*, January 30, 1892.

"The manufacture of these Pills on a grand scale has been reserved for **LEICESTER,** where it has been cultivated for over twenty years."—*Manufacturing Chemist*, April 22, 1893.

"**MR. T. HOWARD LLOYD** has been associated with the **LEICESTER** industry for more than twenty years."—*Chemist and Druggist*, January 30, 1892.

"**MR. LLOYD** was for eighteen years a partner in the firm of JOHN RICHARDSON & CO., when he personally introduced the Pearl Coated Pills to **LEICESTER**; and as he had during all this time practical experience of pill-making, he may be said to have been at it for twenty years."—*Manufacturing Chemist*, April 22, 1893.

The *Lancet*, April 9, 1892:—"The coating gradually disintegrates in flakes even when placed in cold water."

The *British Medical Journal*, February 13, 1892:—"The Pearl Coated Pills prepared by Messrs. T. Howard Lloyd & Co. possess a very elegant and finished appearance."

T. HOWARD LLOYD & CO.

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86 HIGH STREET, LEICESTER.

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BRAND.

BICARBONATE OF SODA,

REFINED AND RECRYSTALLIZED.

PURE AND CHEAP.

ANALYSIS.

Bicarbonate of Soda	97·20
Mono Carbonate of Soda	1·90
Sulphate of Soda	trace
Chloride of Sodium	·035
Moisture	·82
Insoluble	nil

PURE ALKALI,

GUARANTEED 58 DEGREES.

EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers, Bleachers, Dyers; Glass, Paper, and Soap Makers.

CONCENTRATED CRYSTAL SODA

(Sesqui-Carbonate).

By far the Purest and Cheapest form of Washing Soda.

Only 1 lb. of Concentrated Crystal Soda required to do the work of 2 lbs. of Washing Soda

SODA CRYSTALS

OF THE FINEST QUALITY.

Also BLEACHING POWDER.

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CAPSULED "McK. & R." PILLS.

McKesson & Robbins : Originated 1870 : New York.

WHY SHOULD THE "McK. & R." PILLS BE PRESCRIBED?

1. Because they are prepared from materials of the highest quality only.
2. Because they are made according to the B.P. or other Standard Authorities, and therefore all the combinations are well tried and of recognised value.
3. Because they are taken pleasantly—being tasteless—and readily, being ovoid in form.
4. Because they are not subjected at any stage of preparation to the injurious action of heat.
5. Because the coating of *pure transparent gelatine* preserves the contents from oxidation.
6. Because they are always soluble, and the contents soft and quickly disintegrated.

LIST OF PRINCIPAL CAPSULED PILLS.

Aloes, all the B.P. combinations ..... 5 gr.
Aloes, Dilute (Dr. Hall Dinner Pill) ..... 4 gr.
Aloes Barb. | Pulv. Ext. Glycyrrh.
Saponis Pulv. | Theriaca, āā ..... 1 gr.
Aloes and Nux Vomica—
Aloes Soc. ..... 1½ gr. | Ext. Nucis Vom. .... ½ gr.
Aloin ..... 1/10, ¼, ½, 1 gr.
Aloin, various combinations.
Anti-Dyspepsia (Fethergill)—
Strychninæ ..... 1/20 gr. | Pulv. Ipecac. ..... 2-3 gr.
Pulv. Piper Nig. ..... 1½ gr. | Ext. Gent. ..... 1 gr.
Arsenious Acid ..... 1-20, 1-50 gr.
Asafœtida, U.S. and B.P. ..... 5 gr.
Atropine ..... 1-100, 1-300 gr.
Blue Pill, B.P. ..... 1, 2, 3, 5 gr.
Blue Pill, with Colocynth and Hyoscyam. ..... 5 gr.
Calcium Sulphide ..... 1-10, 1-4, 1-2, 1 gr.
Calomel, Colocyn., and Hyosc. ..... 5 gr.
Calomel Co., B.P. ..... 5 gr.
Camphor and Hyoscyam. ..... 2 gr.
Camphoræ. | Ext. Hyoscy., āā ..... 1 gr.
Cannabis Indica ..... 1-4, 1-2 gr.
Cascara Sagrada ..... 3 gr.
Cathartic Comp., U.S.P.
Ext. Jalap ..... 1 gr. | Hyd. Subchlor. ..... 1 gr.
Ext. Coloc. Co. .... 1 1-3 gr. | Gamboge ..... 1-4 gr.
N.B.—The ready solubility of the "McK. & R." Pills is readily proved by taking a dose of these.
Colocynth Comp., B.P. ..... 4, 5 gr.
Colocynth, other combinations.
Copaiba Compound—
Cubebæ Pulv. ..... 2 gr. | Mass. Copaib. ..... 1 gr.
Ferri Sulph. Exsic. .. 1-2 gr. | Tereb. Venet. .... 1 1-2 gr.
Corrosive Sublimate ..... 1-30, 1-20, 1-10 gr.
Croton Oil ..... 1-2 gr.
Diuretic—
Ext. Buchu, Potass. Nitrat. ..... 1 gr.
Scillæ Pulv. ..... 1-2 gr.
Emmenagogue—
Ferr. Sulph. Exsic. ..... 1 1-2 gr.
Thus, American ..... 1 1-2 gr.
Aloes Socot. ..... 1-2 gr.
Ergotin ..... 3 gr.
N.B.—Each Pill = 30 gr. ergot or 30 ms. fl. extract. This form is more reliable and uniform in effect and more agreeable than the liquid preparations.
Euonymin ..... 2, 3 gr.
Iodoform and Iodoform with Iron ..... 1 gr.
Ipecac. ..... 1-4, 5 gr.
Ipecac. Co. ..... 5 gr.
Ipecac. and Squill, B.P ..... 5 gr.
Iron Pill, B.P. Add. ..... 3, 5 gr.
Iron Arseniate ..... 1-8 gr.
Iron reduced by Hydrogen (Quevenne) ..... 1, 4 gr.
Iron and Quinine Citrate ..... 2 gr.
Laxative, Vegetable—
Res. Podoph. | Ext. Colec. Co. ..... 1 gr.
Ext. Hyoscy. | Jalapæ
Ext. Tarax, āā ..... 1-4 gr. | Res. Leptand. āā .... 1-2 gr.
Ol. Menth. Pip.
Mercury, Biniodide ..... 1-16 gr.
Mercury, Proto-iodide ..... 1-20, 1-16, 1-8, 1-4 gr.
N.B.—Made from the absolutely pure *yellow* impalpable powder, free from mercury and from biniodide.
So-called "green" proto-iodide contains uncombined mercury.
Mercury with Chalk ..... 1 gr.
Morphine Muriate ..... 1-8, 1-4 gr.
Nitro-Glycerine ..... 1-200, 1-100, 1-50 gr.
Opium ..... 1 gr.
Opium and Camphor ..... 1 gr.
Opii Pulv. ..... 1 gr. | Camphoræ ..... 2 gr.
Pepsin, Pure ..... 1 gr.
Phosphorus ..... 1-100, 1-50, 1-30 gr.
N.B.—In no kind of Pill are the advantages of the "McK. & R." method better exemplified or more in request. No other brand of Phosphorus Pills is equally reliable for the administration of the unoxidised medicament.
Phosphorus and Iron—
Phosphor. Pur. .... 1-50 gr. | Ferr. Redact. ..... 2 gr.
Phosphorus, Iron, and Quinine—
Phosphor. Pur. .... 1-100 gr. | Ferri Carb. ..... 1 gr.
Quininæ Sulph. ..... 1 gr.
Phosphorus and Nux Vomica—
Phosphor. Pur. ..... 1-50 gr. | Ext. Nucis Vom. .... 1-4 gr.
Phosphorus and Quinine—
Phosphor. Pur. ..... 1-50 gr. | Quininæ Sulph. ..... 1 gr.
Phosphorus and Valerianate of Zinc—
Phosphor. Pur. ..... 1-50 gr. | Zinci Valer. ..... 1 gr.
Picrotoxin ..... 1-30 gr.
Podophyllin ..... 1-8, 1-4, 1-2 gr.
Quinine, Bisulphate ..... 1-4, 1-2, 1, 2, 3, 4, 5 gr.
Quinine, Sulphate ..... 1-4, 1-2, 1, 2, 3, 4, 5 gr.
Quinine Co. (Anti-Malarial).
Largely prescribed in America with excellent results.
Rhubarb Comp., B.P. ..... 5 gr.
Rhubarb with Blue Pill ..... 5 gr.
Salicylic Acid ..... 2, 5 gr.
Soap Comp., B.P. ..... 5 gr.
Squill Comp., B.P. ..... 5 gr.
Strophanthus ..... 1-20, 1-4 gr.
Strychnine ..... 1-50 gr.
Tonic Laxative (Fothergill)—
Quininæ Sulph. .... 2-3 gr. | Ferri Redact.
Strychn. ..... 1-30 gr. | Ext. Bellad., āā ..... 1-4 gr.
Valerianates, Iron, Quinine, and Zinc.
Warburg's Tincture and the same without Aloes.
Each Pill = 1 fl. drm. of the Tincture.
Zinc Phosphide ..... 1-4, 1-2 gr.
Zinc Valerianate ..... 1 gr.

Special Combinations of 3,000 or more Pills made and Capsuled to order for Hospitals, &c., at Special Quotations.

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* * * * * *

Creasote Carbonate (Heyden).

Consists of creasote in combination with carbonic acid, is non-toxic, non-caustic, odourless, and almost tasteless; in the intestine it is decomposed into creasote and carbonic acid, and, in fact, possesses the excellent remedial action of creasote without its poisonous and unpleasant effects. Is highly beneficial in tuberculosis, &c.

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The best known remedy for tuberculosis. Contains 91 per cent. chemically pure crystallised guaiacol, chemically combined with carbonic acid. Guaiacol Carbonate continuously depoisons the blood of consumptives, and, as a consequence, the symptoms of the disease, such as fever, paroxysmal cough, expectoration, and dulness, cease. Professor Chaumier says: "There are only two remedies for tuberculosis, and these are Guaiacol Carbonate and Creasote Carbonate."

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Tribromophenol Bismuth (Heyden).

The best intestinal antiseptic in diarrhœa, typhoid, &c., and the cholera specific. Is a neutral, insoluble powder, devoid of taste or smell, non-toxic, and without action on the sensitive mucous membranes of the digestive organs.

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NON-TOXIC AND NON-IRRITANT.

Readily soluble in water. It dissolves Uric Acid concretions twelve times more freely than Lithia Carbonate.

Is indicated in all cases of Gouty Affections, and in Stone or Gravel of the Bladder and Kidneys.

For literature see "The Therapist," Vols. I. and II., published by Aug. Siegle, 30 Lime St., London, E.C.

PIPERAZINE may be obtained in Crystals wholesale at **17/6** per oz. net, or in 1-GRAMME COMPRESSED TABLETS, pure, without any admixture, Schering's own manufacture, at **7/6** per dozen gramme Tablets.

Minimum Dose—1 Gramme or 15 Grains per day in a Pint of Water.

This may be divided into two or three portions during the day.

PHENOCOLL HYDROCHLORIDE

(PATENT).

NON-TOXIC, AND HAS NO EFFECT ON THE HEART.

This is a preferable analgesic having no toxic effects, nor does it interfere with the circulation of the blood, nor the heart, nor does it reduce the temperature below normal.

Is indicated in all cases accompanied by feverish symptoms, particularly in Rheumatism, Neuralgia, and similar ailments.

MALARIAL FEVER YIELDS TO NO OTHER REMEDY SO WELL.

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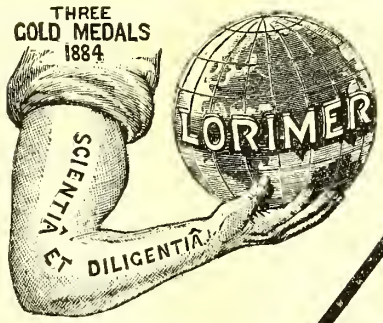

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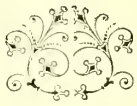

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Ready for Retailing,
Oval, Round, or Flat.

LABELS,
Artistic, and each with Chemist's own Name. 4-oz., 3/-; 6-oz., 4/-; 8-oz., 4/6; 16-oz., 8/3 per dozen.

BOTTLES IN CARTON, 6d. PER DOZEN EXTRA.

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THE LORIMER BRAND

Is an Oil of exceptionally high quality. Nothing so fine in the Market, special oils not excepted. It is put up with a distinctive label at **8/6** per dozen bottles, and at **5/9** per gallon in Winchesters, subject to **5** to **10** per cent. discount, according to quantity.

Before putting in your Winter's Stock,
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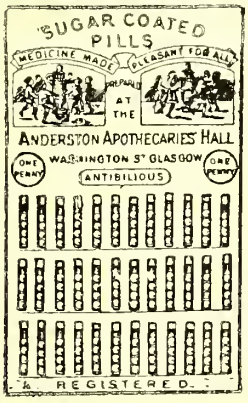

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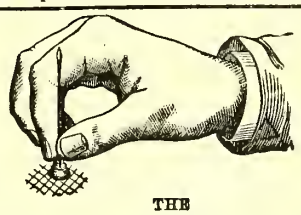

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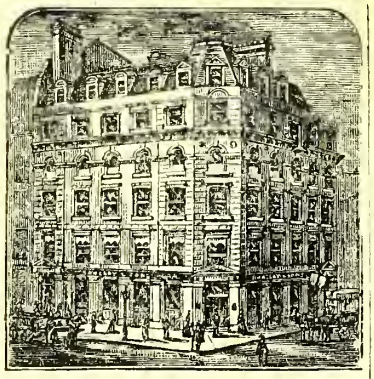

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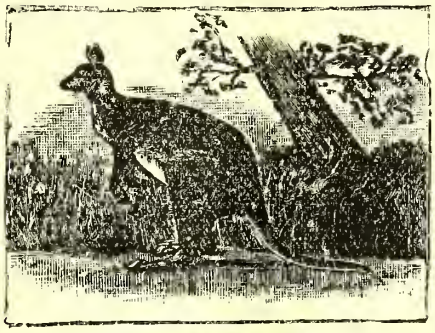


25-lb. Tins. BRAND.

TRADE MARK.

Is admitted to be the Purest Eucalyptus Oil yet introduced to the public.
To be obtained of your Wholesale Druggist.

SOLE CONSIGNEES—LAUGHLAND, MACKAY & BAKER, 50 Lime St., LONDON.

COLONIAL ADDRESS—A. M. BICKFORD & SONS, WHOLESALE DRUGGISTS, 46 CURRIE STREET, ADELAIDE

OIL OF
EUCALYPTUS
GLOBULUS
"PLATYPUS BRAND"

HELBING'S ANALYSIS.—Specific Gravity, 0·9160 at 15° C. Contains 41·4 per cent. Crystallisable Eucalyptol. Free from Phellandrene, and from irritating constituents.

IN TASTE, AROMA, AND THERAPEUTIC VALUE

THE FINEST OIL KNOWN.

OIL OF EUCALYPTUS "RISDONIA"

A BEAUTIFULLY SCENTED OIL.

HELBING'S ANALYSIS.—Specific Gravity, 0·9153 at 15° C. Contains 52·9 per cent. Crystallisable Eucalyptol.

30-lb. TINS. CASES OF 2 and 4 TINS. (Contracts at Special Prices.)

TO BE OBTAINED OF ALL WHOLESALE DRUGGISTS.

APPLY FOR SAMPLES TO THE

TASMANIAN EUCALYPTUS OIL CO.,

138 LEADENHALL STREET, LONDON, E.C., and HOBART, TASMANIA.

55

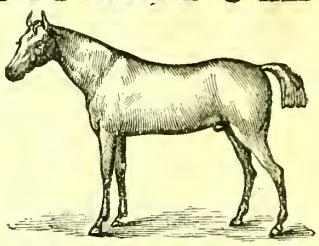
A VALUABLE AGENCY!!!

BIRD'S BOTANIC ESSENCE

(REGISTERED TRADE MARK).

THE CERTAIN CURE

For Curbs, Splints, Spavins, Strains in the Back Sinews, Windgalls, Capped Hocks, Sore Throats, &c., in Horses.



As used in the Stables of the Royal Families, Nobility, the leading Trainers, and largest Horse Owners throughout the World for over 60 years.

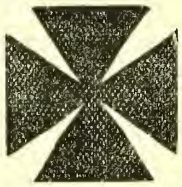
Obtains a large sale (and affords a handsome profit) wherever introduced. May be procured of all Wholesale Houses, or direct from Sole Proprietors—

BIRD & STOREY, 42 Castle Street East, Oxford Street, **LONDON, W.**

CAMPHORTAR

8/- per Gross

CAMPHORTAR



A combination of Camphor, Eucalyptus, and Coal Tar. A Powerful Disinfectant, Deodorizer, Insect Destroyer, and Air Purifier.

CAMPHORTAR

THE CHEAPEST DISINFECTANT BEFORE THE PUBLIC.

It is most elegantly and attractively packed in the form of Maltese Crosses wrapped in Gelatine, and commands a ready sale. Camphortar fills the sick room with a pleasant odour, and destroys disease germs in the air. Camphortar is equally destructive to Moths and other insects. Camphortar is used as a protection against Smallpox, Influenza, Fever, Epidemics, Cholera, and other infectious diseases.

To be obtained of the following Wholesale Houses:—

London: Maw, Son & Thompson, F. Newbery & Sons, J. Sanger & Sons, May, Roberts & Co., Potter & Clarke, Hockin, Wilson & Co., W. Sutton & Co., Bourne, Johnson & Latimer. *Liverpool:* Ayrton & Saunders, Evans, Sons & Co. *Manchester:* Woolley, Sons & Co., Oldfield, Pattinson & Co., Heath Bros. *Leeds:* Simcock. *Leicester:* Howard Lloyd & Co.

MANUFACTURED ONLY BY

W. C. HEBDEN, Albany Works, **HALIFAX, YORKSHIRE.**

NEW SOAPS

MANUFACTURED BY

F. C. CALVERT & CO.,

MANCHESTER.

Good Value, Easily Sold, and Price not named on Tablets or Boxes.

Coal Tar Soap, Pine Soap, Carbolic Soap, Carbolic and Sulphur Soap.

Paper-wrapped Tablets, averaging about 4 to the pound.

1 dozen boxes, each 1*s.* 8*d.* } Subject to Trade Discount.
3 " " 4*s.* 6*d.* }

*** *Order above as Calvert's HYGIENIC Brand.*

FULLER'S EARTH SOAP, PUMICE SOAP, and PETROFENIC SOAP (for the Hair).

Neat paper-wrapped Tablets, averaging about 2½ oz. each. 1 dozen boxes, each 1*s.* 3*d.*, less Trade Discount.

*** *Order above as CALVERT'S.*

WILEY'S CHEMICAL ESSENCE

FOR

LAMENESS in HORSES

A Genuine Remedy. Brings credit to all who sell it.

50 YEARS' UNBROKEN SUCCESS

SOLE MAKER AND PROPRIETOR,

FRANCIS E. ROOKLEDGE, CHEMIST,

EASINGWOLD, YORK.

TO BE HAD OF USUAL WHOLESALE HOUSES.

WHOLESALE & EXPORT orders for

MASON'S

PERFUMED SOLUTION OF

CARBOLIC ACID

Should be addressed to

C. E. MASON & Co., 2 Beech St., **LONDON, E.C.**

TERMS UPON APPLICATION.

JEYES' FLUID

THE NON-POISONOUS DISINFECTANT.

A TRUE GERMICIDE & DEODORISER,

Somewhat less refined than **CREOLIN**, the virtues of which are

RECOGNISED BY MEDICAL AUTHORITIES ALL OVER THE WORLD.

Jeyes' Fluid and its Preparations

SHOULD BE RECOMMENDED BY THE CHEMIST EVERYWHERE WHO DESIRES TO SUPPLY ONLY RELIABLE ARTICLES.

PRICE LIST
(ABBREVIATED).

Jeyes' Fluid.

Retail Prices s. d.		Trade Prices s. d.	
0 6	Sixpenny Bottles (bottles included)	4 0	per doz.
1 0	Shilling " "	7 0	"
3 6	½-gall. Iron Drums (drums included)	2 6	each
6 0	1-gall. Drums " "	4 6	"
11 6	2-gall. " " "	8 6	"
28 6	5-gall. " " "	20 0	"
55 0	10-gall. " " "	38 6	"
Per gall.			
5 0	20 & 40 gallon Casks (casks free, not returnable)	3 6	per gall.
1 1½	UNIVERSAL PERFECT PURIFIER (in bottles)	8 6	per doz.

Sanitary Powder.

1 0	each Canisters, in boxes of 1, 2, or 3 doz.	7 0	per doz.
0 6	" " " "	4 0	"

(Also in Casks and Bags.)

Disinfectant (Brown) Soap or Household (White) Soap.

No. 1 QUALITY.—In 1-lb. Bars, papered.)

In 1-cwt. Boxes .. .. 31 0 per cwt.

(Also in Small Packages.)

No. 2 QUALITY.

In 1-cwt. Boxes .. .. 25 0 per cwt.

(Also in Small Packages.)

In 3-lb. Bars, 2s. per cwt. less.

Triple Milled Toilet Soaps.

Elegant Tablets for the Toilet, of finest quality, containing the Antiseptic Properties of "Jeyes' Fluid."

Retail Prices Per box s. d.		Trade Prices s. d.	
1 6	"Perfect Purifier," 6 Tablets	12 0	per doz.
1 6	"Coal Tar," 6 Tablets	12 0	"
2 0	"Old Brown Windsor," 12 square Tablets	18 0	"
0 6	"Special Line," 3 Tablets	4 6	"
2 6	"Toilet" (Scented), 6 Tablets	21 0	"
2 6	"Sublime Toilet" (Unscented), 6 Tablets	21 0	"
2 0	"Boudoir Tablets" (Perfumed), 3 Tablets	16 0	"
5 0	"Transparent Complexion," 12 Tablets	36 0	"
1 0	"Transparent Soap," 3 Tablets	8 0	"

N.B.—The first three varieties supplied also in 7-lb. deal Boxes. Customers' Names stamped on Tablets if sufficient quantity ordered.

Toilet Preparations.

Each			
1 0	Shaving Stick, in Cardboard Box	8 0	per doz.
6 0	Tooth Powder, in 1-lb. Bottles	48 0	"
1 0	" " " Metal Box	7 0	"
2 0	Dentifrice Water, in Bottles, with Sprinkler	15 0	"
1 0	Lano-creolin, 5 % Antiseptic, in Tubes	9 0	"
3 0	" " " Large Tubes	24 0	"
6 0	" " " 1-lb. Jars	48 0	"
1 6	Antiseptic Ointment, 10% Antiseptic, in China Pot	12 0	"
0 9	" " 20% Antiseptic, in Metal Box	6 0	"
3 6	Spray Diffuser, in Box complete	30 0	"

Sheep Dip, Wood Preserver, and other Agricultural Preparations.

TERMS, 2½ PER CENT. DISCOUNT AT ONE MONTH.

All Goods delivered Free in London. For the Country, Free at any London Railway Station or Wharf.

FULL PRICE LIST ON APPLICATION.

ALSO

A NEW MEDICAL PAMPHLET,

With Recent Opinions of English Medical Men, free on request.

JEYES' SANITARY COMPOUNDS CO., Ltd.

43 CANNON STREET, LONDON, E.C.

PETROLEUM JELLY

WHITE, RED AND YELLOW — BEST AND PUREST

TRADE MARK — S L

CONFORMS TO ALL REQUIREMENTS OF B.P.

AND PRONOUNCED BY THE MEDICAL PROFESSION TO BE UNSURPASSED.

Extract from Analytical Report of Dr. S. Rideal, F.C.S., F.I.C., F.G.S.

"Practically tasteless and free from smell, contained no fat or resin, * * * carefully manufactured."

SNOWDON, SONS & CO., MILLWALL, LONDON, E.

JOSEPH WATSON & SONS,

MANUFACTURERS OF

GLYCERINE

DOUBLE DISTILLED CHEMICALLY PURE, 1260 Sp.G.,

ALSO FOR

NITRO-GLYCERINE AND OTHER MANUFACTURING PURPOSES.

PACKED IN 10 AND 5 CWT. IRON DRUMS, TO BE RETURNED, AND IN 56 LBS. TINS FREE.

WHITEHALL SOAP WORKS, LEEDS.

WILLIAM BURTON & SONS, BETHNAL GREEN, LONDON.

Hydrogen Peroxide, Indigo Extract, Soluble Indigo Powder, Orchil, Cudbear, Logwood Extract, Fustic Extract, Aniline Dyes, Fine Lakes for Lithographic Inks, Vermilionettes, Drysalteries.

Sole Agents in United Kingdom and Colonies, excepting Canada, for

The New Bleach, **SODIUM PEROXIDE** (Aluminium Co., Ltd.).

BOORD & SON,

DISTILLERS, FOREIGN WINE AND SPIRIT MERCHANTS, AND METHYLATORS,

ALLHALLOWS' LANE AND BARTHOLOMEW CLOSE, LONDON, E.C.

Quotations for **S. V. R.** *Methylated Spirit and Finish on application.*

FINEST ORANGE WINE FOR QUININE

S. V. METH.

JONES & COMPANY,

COPPERFIELD ROAD,

LONDON, E.

LARGEST MAKERS IN THE KINGDOM.

We are prepared to supply METHYLATED SPIRIT in 5-gallon quantities at Lowest Prices.

REDUCTIONS TO LARGE BUYERS.

SAMPLES FREE.

THE

SUSPENSORY BANDAGE

TO RECOMMEND IS THE

"SYRACUSE,"

With Self-Adjusting Loop at Back of Pouch.

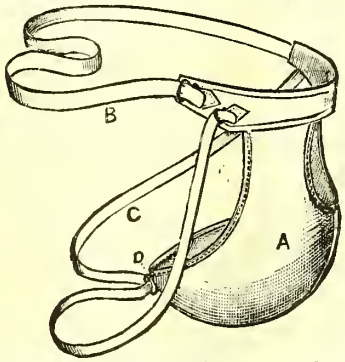
(PATENTED IN ENGLAND.)

HAS THE LARGEST SALE OF ANY SUSPENSORY BANDAGE IN THE STATES.

3 SIZES—Large, Medium, and Small.

Made in Seven Qualities, to suit all Markets.

Each Bandage is carded separately, with Printed Guarantee.



Each Bandage bears a Guarantee to give satisfaction to wearer, or money returned at our expense.

COTTON POUCHES.

Nos.	10	16	21
	6/6	12/	18/ per doz.

SILK POUCHES.

Nos.	26	31	34	36
	24/	30/	48/	72/ per doz.

We call attention to the fact that our Bandages are advertised in all the leading Athletic papers, and are largely used by Athletes of all kinds. We would strongly recommend all Chemists who require a first-rate Bandage, and who wish to give satisfaction to their Customers, to hold stock, which will enable them to supply our Bandages when asked for.

May be obtained from all leading Druggists' Sundries Houses throughout the Country, or from the

WELLS MANUFACTURING CO. (H. C. Quelch), LUDGATE SQUARE, LONDON, E.C.

HOW 20/- WILL MAKE £100.

You will not find a **better** scope for making money in all these pages.

My valuable recipes, which have been before the Trade for 15 years, have been the stepping-stones to many a big concern. See Exchange Column, and send at once for List.

For a 5/- **Postal Order** I will send half-a-dozen valuable recipes by the aid of which you can make pounds. The following are a good sample, but any others might be selected from my detailed printed lists of 480, which I will send, post free, anywhere:—

Glycerine Cream; most useful and elegant. Unequalled.
Tic Specific; acts like magic. Cures after all others fail.
White Oils; a perfect liniment, snow-white and inseparable.
Toothache Cure; instant ease. Not injurious to other teeth.
Occasional Mixture for Ladies; safe, but very certain.
Glycerine and Licorice Balm; pleasant taste, very efficacious, and cheap.

EXTRA SPECIAL RECIPES.

5/- each, or 3 for 10/-

Aniline Marking Ink; best ink ever sold. Perfectly indelible.
Balsamic Linctus; permanently brilliant, cherry red, no narcotic, pleasant, most efficacious, and very cheaply produced.
Circassian Stimulant; best Hair Producer and Restorer, and most elegant preparation in the market.

GOOD GOODS. SELL FREELY, PAY WELL.

2d. Solid Perfumes; 6 kinds; sweet and lasting.
2d. Sanoscent; each in Japanese basket
2d. Floral Tablets; for whitening the skin, &c.

In order to place these goods in the hands of the million, I will send 6 dozen assorted or otherwise, carriage paid, for 5/-, as a trial order only.

TOM BROOKS, Chemist, Hornsey, LONDON, N.

STOKES'

CASH TILL.

REDUCED PRICE

50/-

(Sent on Trial seven days, on receipt of two references).

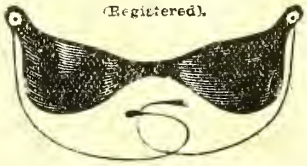
Particulars and Testimonials on application.

G. R. STOKES & CO., LIM.,

HANLEY, STAFFS.

Harrison's Featherweight Eye Preservers & Reading Shades

(Registered).



Court Journal says of them—"They are a perfect gem of beauty, lightness, and utility."

XYLONITE EYE CAPS
(*Concave*). *Rights and Lefts.*
Flesh Coloured.
Stop out the Light and Cold without Touching the Eye.

Of MAW, SON & THOMPSON,
And all Sundriesmen,
And T. H. HARRISON, 40 Hatton Garden, London, E.C.

SAMPLE ORDER REQUESTED.

ESTABLISHED HALF A CENTURY.

THOMAS GLOVER & SON,

Telegraphic & Cable Address—"ELASTIC NOTTINGHAM."

Elastic Stocking and Surgical Appliance Manufacturers,

RUSSELL STREET STEAM MILLS, NOTTINGHAM.

Manufacturers by steam power of every description of Surgical Elastic Hosiery suitable for all Climates. Abdominal Belts, Elastic Webs and Stockingnette Bandage, all widths and colours; Hot-water Bottles, Urinals, Enemas, seamless and others. Nets and Rubber Coverers to the trade. Prussian, Silk, Galoon, and Stay Bindings, Cords, Webs, &c.

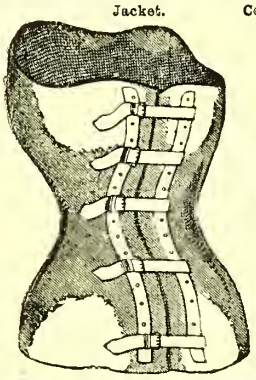
The only Firm in existence that actually make their goods from the raw materials Special orders delivered promptly. Special Terms to Wholesale Houses and Shippers.

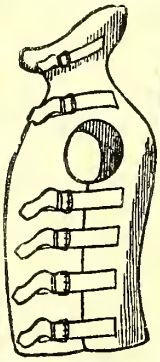
This Advertisement appears alternate weeks. When ordering please mention this Journal.

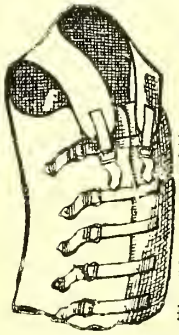
COCKING'S ADAPTABLE PORO-PLASTIC JACKETS AND SPLINTS.

Patentee and Sole Manufacturer, **J. T. COCKING, PLYMOUTH.**

Jacket. Cervical Jacket, No. 1. Cervical Jacket, No. 3.







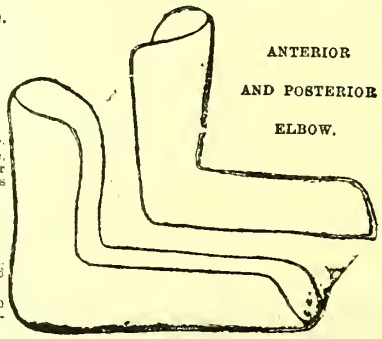
JACKET
(In cases of slight deformity).

INSTRUCTIONS FOR MEASUREMENT.
Circumference at axilla.
" waist.
" hips.
Length from axilla to great trochanter.

In severe angular cases, circumference over apex of curve, position of ditto, and contour should be given; in lateral cases a description of the case. In all cases it must be stated if for male or female.

CERVICAL JACKETS.
Same measurements required, and circumference at neck, and length from neck to axilla.

Any part of the Jacket can in the process of manufacture be left soft.



ANTERIOR AND POSTERIOR ELBOW.

A FULL LIST OF SPLINTS AND PORO-PLASTIC IN SHEETS MAY BE HAD ON APPLICATION.

CHEST PROTECTORS

Our Own Manufacture. Made in the following Materials:—

SCARLET FELT. PINE WOOL FELT.

SCARLET FLANNEL LINED CHAMOIS *(The best Skins only used).*

FUR WOOL FELT (Natural Colour).

AND

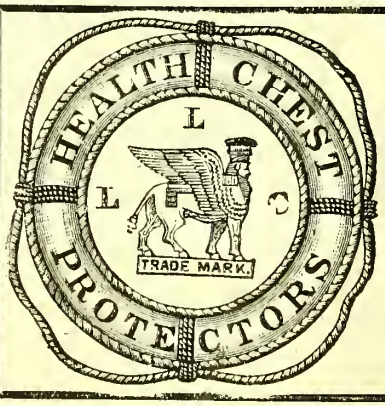
SCHUTZE'S HYGIENIC WASHABLE CHEST PROTECTORS
(Natural and Scarlet). Our Speciality.

IN SIZES FROM 1 TO 6.

INTENDING BUYERS WILL FIND IT TO THEIR ADVANTAGE TO WRITE FOR SAMPLES AND PRICES.

F. SCHUTZE & CO., Manufacturers, 36a ALDERSGATE STREET, **LONDON, E.C.**

Telegraphic Address:—"ODORATORS LONDON."



THE LIVERPOOL LINT CO.

MARK STREET MILLS, LIVERPOOL,

Inventors and Manufacturers of

THE ORIGINAL STOCKINETTE FLEECY

CHEST PROTECTOR

Every Protector has this Trade Mark on Label.

Large Discounts. Perfect Goods.

WHITE, SCARLET, AND NATURAL GREY.

A VIRGIN FIELD FOR PROFITS!

YOU DRAW THE CHEQUE. WE DO THE REST.

THE ONLY UP-TO-DATE SYSTEM FOR MANUFACTURING

SUPERFATTED TOILET SOAPS

The Milling System: Beyer Frères, Paris.

TWO GOLD MEDALS, PARIS EXHIBITION, 1889.

PROCESS AS EASY AS A B C. SYSTEM YIELDING BEST PROFITS.
ONLY PROCESS TO MANUFACTURE A FEW GROSS OF TABLETS AT A TIME.
HIGHEST FINISH AND ATTRACTIVE APPEARANCE GUARANTEED.
NO PREVIOUS KNOWLEDGE OF SYSTEM NECESSARY. VERY LITTLE ROOM REQUIRED.
SMALL OUTLAY. INSTALLATION HANDED OVER IN WORKING ORDER.

Raw Soap, Recipes, Colours, Compound Perfumes, and the whole necessary outfit, with full particulars, supplied by the SOLE AGENTS for the UNITED KINGDOM AND COLONIES—

MARTIN PERLS & CO.,

62 & 63 BASINGHALL STREET, LONDON, E.C.

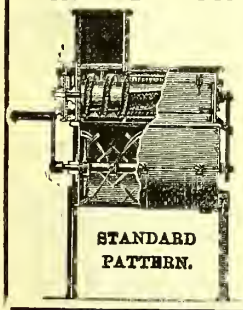
IMPORTERS OF ESSENTIAL OILS, COLOURS, CHEMICALS, DRUGS, &c.

TELEPHONE No. 267. Telegraphic Address for Home and Abroad—"SAPOLYT LONDON."

INSPECTION INVITED.

GARDNER'S PATENT

"RAPID" SIFTERS AND MIXERS



STANDARD PATTERN.

WILL BE EXHIBITED ON

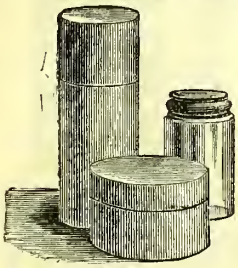
Stands 118 and 119 Brewer's Show, Agricultural Hall, Islington, London, from October 23 to 28.

Prices from 48/-

WM. GARDNER,
Engineer, &c.
GLOUCESTER.

In Stock, upwards of 50,000,000 Articles.
Any Special Articles made to order.

TURNED WOOD BOXES, &c.



*3018 Box for Pills or Powders.

SIZE		TO HOLD		PER GROSS.
D	..	6 Pills	..	1/-
A	..	12 ,,	..	1/6
C	..	24 ,,	..	2/-
H	..	36 ,,	..	3/-
V	..	Powder	..	8/-

REDUCED PRICES for Original Cases.

CONTRACTS to supply Manufacturers as required at specially low figures.

MAXIME & CO., Wood and Bone Turners,
150 OLD STREET, LONDON, E.C.
Factories and Sawmills—Gothenburg, SWEDEN, and Boulogne, FRANCE.

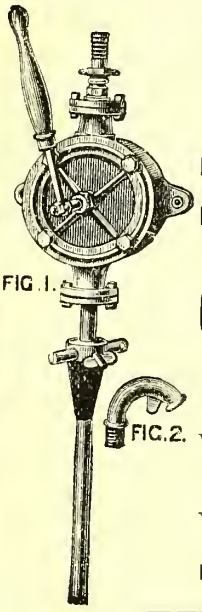


FIG. 1.

FIG. 2.

BUY THE BEST OIL PUMP

AND SAVE

OIL, TIME, MONEY.

THOUSANDS IN USE.

We have bought the Stock of these Pumps from

MESSRS. PONTIFEX & WOOD
SHOE LANE, LONDON,

Who have given up this part of their business, and it is our intention to continue same.

We hold a Good Stock, and can give Prompt Delivery.

Write for full particulars and prices of The "Farringdon" Patent Oil Pumps to

W. H. WILLCOX & CO.

34 & 36 Southwark Street,
LONDON, S.E.

BETTS & CO., LIMITED

(ESTABLISHED IN 1840),

SOLE MAKERS IN GREAT BRITAIN OF

METALLIC CAPSULES,

AND PATENTEES OF THE

COLOURED SIDE MARK, LABEL, AND OTHER SPECIALITY CAPSULES

(For the Prevention of Fraud and Refilling of Old Labelled Bottles), as supplied to Bass & Co., Hennessy and Martell Cognac, and the leading Brewers and Bottlers of Wines and Spirits throughout Europe.

PLAIN ORDINARY CAPSULES,

For Small Phials, 2*s.* 6*d.* and upwards per 1,000, according to size, style, design, and quantity.

SPECIAL CONTRACTS FOR CONTINUOUS DEALING.

Manufacturers of Pure English-made Bottling and Package Tinfoil, from 1*s.* per lb. and upwards; **Mixed Foil** (Foreign Quality), from 6d. per lb. (according to gauge); **Patent Barrel Packages and Snuff Canisters, Tea Packages, &c.**

COLLAPSIBLE TUBES AND SPRINKLERS

FOR PERFUMERS AND OTHERS.

MANUFACTORIES:—LONDON: Chief Office and Factories, Wharf Road, City Road, E.C.; and Holloway and Batavia Mills, Holloway, N.W.—BIRMINGHAM: Moor Green Fields.—PARIS: Office, 65 Rue Verrerie.—BORDEAUX: Office, 3 Quai de Chartrons; Factory, Monrépos, Floirac.

PATENTEES OF HYDRAULIC & MECHANICAL PRESSURE CAPSULING MACHINES,

ESPECIALLY ADAPTED FOR CHEMISTS' COUNTERS.

Largely in use by the Trade, and efficiency guaranteed for all sizes of Bottles, at Royalties from 5*s.* to £2 2*s.* per annum.

TO CHEMISTS AND DRUGGISTS.

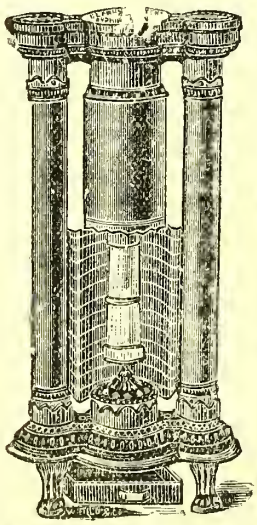
AGENTS WANTED FOR THE SALE OF

"THE SYPHON" (REGISTERED TITLE) HYGIENIC CONDENSING GAS HEATING-STOVES

(CLARK'S PATENT).

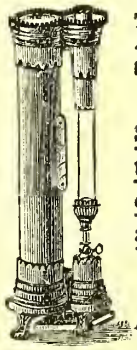
A Necessary for all Invalids. A Comfort to Everybody.

NO FLUE REQUIRED. FREE FROM SMELL OR SMOKE.



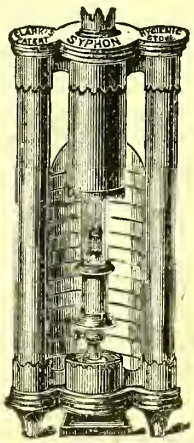
All injurious vapours are reduced to harmless liquid inside the Stove, and passed out at foot into a tray provided for that purpose.

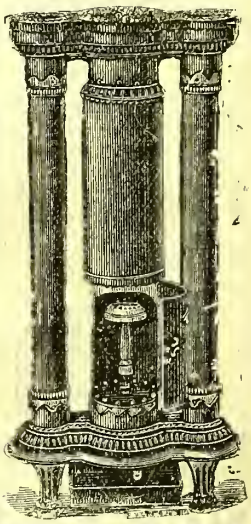
For use in Hospitals, Sick Chambers, Bedrooms, Halls, Conservatories, Schools, Shops, &c.



They give a Pure, Equable, and Agreeable Heat, which can be graduated and sustained at the will of the user.

Specially suitable for patients suffering from Bronchial affections, as a moist atmosphere is obtainable when required.





For Terms, Particulars, and Prices, apply to

S. CLARK & CO., Patentees and Makers, Syphon Works, Park Street, ISLINGTON, LONDON, N.

Telegraphic Address—"SYPHON STOVES LONDON." Wholesale Agents—Messrs. Maw, Son & Thompson, Aldersgate Street, London, E.C.

Fig. 42.

S. MAW, SON & THOMPSON'S

OLD-FASHIONED

FLAT FEEDING BOTTLES

Fitted with Screw Glass Stopper,

AND

Bulbed Indiarubber Leech-bite Teat.

EACH IN A BOX WITH BRUSH COMPLETE.

Three sizes, **6/2, 6/8,** and **7/8** per dozen.

S. MAW, SON & THOMPSON, 7 to 12 ALDERSGATE STREET, LONDON.

JAMES BURROUGH,

FINE PORT (without tannin)
FINE SHERRY (for Medicinal uses, &c.)
FINE MALAGA (for Steel Wine, &c.)
FINE BURGUNDY (for invalids)
S.V.R. *and Methylated Spirit at lowest present prices.*

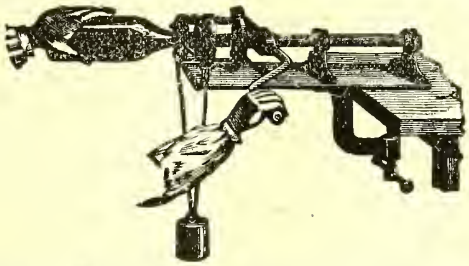
CALE ST. DISTILLERY

All at Lowest Prices and specially recommended.

CHELSEA

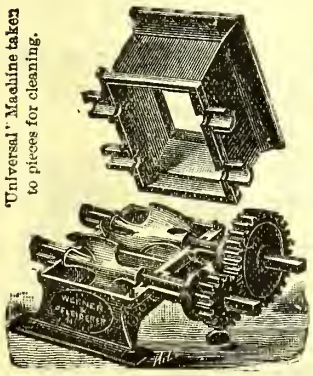
NEW CAPSULING MACHINE

The only Machine which leaves no crease or pleat on the Capsule.



Can be fixed to any Counter. A single pull of the lever is sufficient to fix the Capsule.

Patentee—C. MELIN, 37 Crutched Friars, LONDON, E.C.


'Universal' Machine taken to pieces for cleaning.

Size 3, Type I., for 1-lb. Mass.

THE "UNIVERSAL"

Kneading & Mixing Machine,

Used by all the largest Pill Makers.

SUITABLE ALSO FOR

OINTMENTS, POWDERS, AND MASSES of any Consistency.

PILL MASSING MACHINES.

PILL PIPERS, CUTTERS, ROUNDERS, COATERS, "SPIRAL BRUSH" POWDER-SIFTERS

(WITH INTERCHANGEABLE SIEVES),

AND EVERY ACCESSORY FOR THE PILL ROOM.

WERNER, PFLEIDERER & PERKINS (LIMITED),

43 Regent Square, GRAY'S INN ROAD, W.C.

SHOWROOMS :—117 QUEEN VICTORIA STREET, E.C.

Contractors to the War Offices of all the Great Powers & other Governments.

Telephone No. 1365. Telegraphic Address—"FISH LONDON."

New Full Series of Moulds for

ROUNDED-CORNER DISPENSING FLATS

in Perfect Shape has been Prepared by us, and THESE BOTTLES are

NOW IN STOCK

at our Last Reduced Prices.

JOHNSEN & JÖRGENSEN.

GLASS BOTTLES

GOOD AND CHEAP.

From Stock in London or direct from the works.

THE NEW SHAPE FLATS,
With rounded edges, or the ordinary kind, plain or graduated.

3 and 4 ounce .. .. 8/- per gross.
6 and 8 ,, ... 9/- ,,

WHITE MOULDED PHIALS.

¼ oz.	1 oz.	1½ oz.	2 oz.
3/6	3/9	4/6	5/3 per gross.

PANEL BOTTLES.

2 oz.	4 oz.	6 oz.	8 oz.
7/-	8/-	9/-	9/- per gross.

SPECIAL NOTICE.—Six gross and upwards of assorted sizes sent Carriage Free to any part of England. Smaller quantities not carriage paid. Sample Bottle sent free on application.

I. ISAACS & CO., GLASS BOTTLE MANUFACTURERS,
Francis St., Tottenham Court Road, LONDON, W.C.
Established 50 Years Bankers—London and Westminster Bank.

THE ISLINGTON GLASS BOTTLE CO.

153 Upper Thames St., City, London, E.C.

Are now supplying very superior quality round edge

DISPENSING BOTTLES

At the following low prices:—

3 and 4 ounce .. .. 8/- per gross.
6 ,, 8 ,, ... 9/- ,,
12 ,, ... 12/- ,,

PLAIN OR GRADUATED.

A Sample Bottle forwarded on application.

Six gross of assorted sizes are sent, carriage paid, to any Chemist in England; smaller quantities not carriage paid.

Bankers—LONDON AND WESTMINSTER BANK.
ESTABLISHED UPWARDS OF 50 YEARS.

A. de St. DALMAS & Co., Leicester.

TRADE MARK. MAKERS OF

"The Leicester" **POROUS PLASTERS** In Rubber Combination.
"The Leicester" **RIBBON PLASTERS** On FLESH-COLOUR CAMBRIC. All widths. In Tins.
"The Leicester" **SPREAD PLASTERS** All kinds.
"The Leicester" **HOSPITAL STRAPPING** On Holland or pure Calico.
"The Leicester" **WOUND & BEDSORE PADS** (Patent) with Adhesive Margin.
"The Leicester" **MENTHOL LEAVES** (Patent) in 1d. and 6d. packets.
"The Leicester" **POROUS PLASTERS** ON SCARLET CANTON FLANNEL.
"The Leicester" **MUSTARD LEAVES** Thoroughly reliable.
"The Leicester" **SELVEDGE BANDAGES** Light, Porous, Elastic and Strong.
"The Leicester" **RIBBON PLASTERS** IN RUBBER COMBINATION, on handsome spools. All widths.

Francis' Capsicum Leaves, Francis' Bronchial Protector, &c.

May be obtained from any Wholesale House

SPONGE IMPORTERS.

M. PETERSON & CO.

(ESTABLISHED 1870),

75 ST. ANNE STREET, LIVERPOOL.

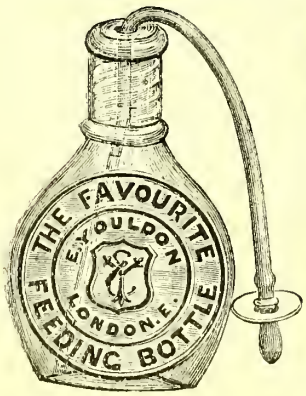
FOR HOME, FOREIGN & COLONIAL MARKETS.

SPECIAL LINE—FEEDING BOTTLES.

GREEN GLASS, Plain Neck, best Black Rubber Fittings 20/6 per gross.
WHITE GLASS, Screw Neck, best Black Rubber Fittings 27/11 ,,
VEGETABLE IVORY RING SOOTHERS.. .. .. 8/6 ,,

Terms—Net Cash with order, packages free, delivered to rail or wharf, London.

SURREY PACKING CO., 57 New Kent Road, LONDON, S.E.



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OF EVERY DESCRIPTION.

Revised Price List on Application.

FEEDING BOTTLES AT LOW RATES.

Write for Prices of any kind of Bottle required to

E. YOULDON,

East London Glass Bottle Warehouse,

36, 38, & 40 GREAT GARDEN STREET, WHITECHAPEL, LONDON, E.

"AMINOL"

Is the name given to a new gaseous reagent, which is obtained from certain chemical compounds of the "Amines" group. It has the power, even in dilute solutions, of destroying all micro-organisms and their spores, whilst it is perfectly harmless to the human system. Its high importance and value, not only for disinfection but also for remedial purposes, is therefore obvious. It has great advantages over other antiseptics in that it does not merely disguise, but actually kills, all foul emanations caused by fermentation or putrefaction, and that it can be applied to the most tender fabrics without corroding or staining.

USED AND RECOMMENDED BY HIGH AUTHORITIES.

PROTECTED BY ROYAL LETTERS PATENT.

NONE GENUINE UNLESS BEARING THE TRADE MARK.

SOLUTION "D."

For

General Disinfecting Purposes.

PERFECT DEODORISER.
NON-POISONOUS.
NON-CORROSIVE.
DOES NOT STAIN.

Sold Everywhere. 1s. per Bottle.
(Champagne Quarts.)

SOLUTION "R."

For

Use in Medicine and Surgery.

EFFICIENT REMEDY IN ALL SUPPURATIVE, PHLEGMONOUS, OR FERMENTATIVE DISEASE PROCESSES.

Of all Chemists.
Bottles, 1s. 1½d., 1s. 9d., 2s. 9d.

SOLUTION "R."

This Preparation has met with marked success in application in Medicine and Surgery, and has been freely acknowledged by a considerable number of medical men, who are using it in their practice, to fully equal in antiseptic power, and to surpass in healing properties, the best known remedial agents hitherto available, whilst being absolutely free from any of their well-known risks or drawbacks.

The reports so far received of cases successfully treated, extracts from which are embodied in Leaflets accompanying the Preparation, already comprise a large variety of the more prevalent disorders, such as Wounds, Sores, Ulcers, Tumours, &c., various diseases of the throat (Diphtheria, Tonsilitis, &c.), and diseases of the ear and nose; also diseases of the digestive and generative organs.

In Veterinary practice, also, remarkable cures are recorded.

The sanitary importance and therapeutical value of "Aminol" may therefore be said to be fully established.

Sold by Chemists in 4, 8 and 16 oz. bottles, price (retail for dispensing), 1/-, 1/6, and 2/6, respectively. Supplied in bulk to Hospitals, Dispensaries and Surgeries, Institutions, &c.

SOLE AGENTS FOR UNITED KINGDOM:

THOMAS HODGKINSON, PRESTONS & KING,

81 BISHOPSGATE STREET WITHOUT, E.C.

A1 TINS 1D. SIZE also B1 2D. „ } FOR OINTMENT, Tooth Powder, &c.

Plain or with Stock Embossing "Pet. Jelly," "Zinc Oint.," &c.

THE BEST AND CHEAPEST IN THE TRADE.

To be had of all Druggists' Sundriesmen.

A1—1¾×11/16 APPLY FOR SAMPLES. B1—1⅞×11/16

EWALD HILDEBRAND,
ARMY CONTRACTOR.

No. 680, 12s. per dozen, guaranteed
HALLE a/S. GERMANY.

ORANGE WINE
(VIN. AURANT., P.B.).

Specially brewed for Quinine Wine. Does not deposit, will keep good in any climate. In casks, 13 gallons to 140 gallons; small casks, 3s. 9d. per gallon, carriage allowed if paid within three months. In wine-bottles (not less than 3 doz.), at 9s. per doz. bottles included. Casks and cases extra, and returnable.

Sample on application. *Special quotations to large buyers.*

DURRANT & CO., Railway St., HERTFORD.

FLUID SHEEP DIP.

Strength and purity unsurpassed. Mixes well in the hardest water. Will not stain the wool. Sample and quotation on application. Special terms to large consumers.

CARBOLIC & OTHER DISINFECTING FLUIDS & POWDERS.

FLETCHER BROS. & CO., Government Contractors, GRIMSBY.

BLAUD'S PILLS *(Best Quality, Soluble Coating).*
10-gross Tins, carriage paid, for 4/6. Cash with order.
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COMP. SULPH. LOZ. (Garrod's Formula) & TABLETS.
4 lbs., carriage paid, for 4/-. Cash with order.
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THE "ORIGINAL CANISTER" & ROASTED COFFEES

These Coffees have been before the Public for nearly 50 years, and are the very best of their kind.

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ESTABLISHED 1847. AGENTS WANTED.

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GOUT & RHEUMATIC PILLS

Cure Gout, Rheumatism, Sciatica, Lumbago, Neuralgia.

The Excruciating Pain is quickly relieved, and cured in a few days, by these celebrated Pills, well known as the Great Remedy for the above Complaints. NO POISONOUS INGREDIENTS.

S.V.R. In 40-gallon returnable iron casks, pure tinned, with screw bungs, interchangeable brass taps and spanners for opening. Farina, Dextrine, Glucose, Alcohol absolut., Fusel Oil, Pear Oil, Lime- Soda- Lead-Acetates, Verdigris, Acetic Acid, Wood Naphtha, Charcoal, Ammonia liquid 880-900, anhydrous Sodium Sulphide, Bromides, Iodides, Chloralhydrate, Boracic Acid, Sulphate of Copper, Permanganate of Potash, Ol. Caryophyll., Menth. Pip., Pini, Juniperi.

HUGO LORENZ, 7, 8 Idol Lane, LONDON, E.C.
See also page 114, March 18 issue.

WEST AUSTRALIAN DISTILLERY COMPY.'S
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IS THE CHEAPEST PURE OIL ON THE MARKET.
Wholesale only.
SALE AGENTS:—SAMUL. LAMBERT & CO.,
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E. H. THIELLAY'S (Registered 1867)
EAU F. JOUVENCE, GOLDEN.
Producing Flaxen Golden Hair.
Gold Medal, PARIS, 1867. PHILADELPHIA, 1876.
This is a very superior article. In Bottles at 3/6, 6/-, & 10/-
All Wholesale Houses, or direct from
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Parfumeur-Chimiste, Amersham Park, New Cross, LONDON S.E.
(SHOW ROOMS AT CHARING CROSS HOTEL.) [3]

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OPIUM,
SCAMMONY, GALLS, GUM TRAGACANTH, MASTIC, ASPHALTUM, ETC.
SOLE AGENTS FOR U.K.:
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ARTHUR A. BARRETT, MESSINA,
Pharmaceutical Chemist,
Not in connection with any other Barrett in Messina.
Absolutely Pure Essence of Lemon.
„ „ „ „ Sweet and Bitter Orange.
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SPÉCIALITÉ:—CONCENTRATED OIL OF LEMON.
Thirty times the Strength of ordinary Essence.
Correspondence invited. No Agents. Telegrams:—"Carboy Messina."

EVERY CHEMIST
SHOULD STOCK
HEALD'S DOG MEDICINES.
They command a ready sale everywhere.
Address—HEALD, BURNHAM, BUCKS.

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SPECIALITIES: Glycerine — Gum Arabic — Gum Tragacanth—Pure Beeswax—Honey.

IT WILL COST NOTHING
Our Export List mailed free to Buyers abroad.
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OXONIA
The New Lotion for Rodent Ulcer, Cancer of Tongue, Lips, Lupus, Ringworm, Varicose Veins, &c.
Retail, 2/9 per Bottle. Trade, 23/- per dozen, subject.
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ESTABLISHED 1835.

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Best Mechanical work from impressions or models. Care and promptitude may be relied on. Moderate charges, inclusive of materials.

FENTIMAN & CO., DENTISTS, 2 Upper East Smithfield, adjoining Royal Mint, London.

The above is the only Address.

PUSH GETS THE BUSINESS!!

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BOTANIC DRUGS, SEEDS, PERFUMERY, ESSENTIAL OILS, ETC., ETC.

SEND FOR PRICE LISTS.

16 Laurence Pountney Lane, Cannon Street, E.C.

NESS & COMPANY, DARLINGTON.

Old-established Manufacturers and Exporters of Insecticidal, Disinfectant, and Deodorising Preparations (Three Gold Medals for Excellence).

Will send to any address Particulars and Samples of their Powerful

SHEEP DIPS AND DISINFECTANTS.

World's Fair, Chicago, Stand 293, British Section, Manufactures Building.

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HEATH BROS.,

27 BLACKFRIARS STREET, MANCHESTER,

Being cash buyers can offer all lines at the very lowest prices.

WRITE FOR QUOTATIONS.

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First-class Mechanical work undertaken for the Profession at very low charges. Satisfaction guaranteed.

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Bromley's Gout & Rheumatic Pills

48 Sir Thomas's Buildings, Liverpool, Eng.

WILL CURE YOU.

1/1½ or 2/9 from Chemists.

15 or 35 Stamps by return post.

FIRST EXTRACT

LEMON OIL,

Absolutely pure. Nothing finer imported.

C.i.f. Hull, London, or Liverpool, delivered as required up to December, 1893. Special quotations for contracts up to December, 1894.

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PRICES AND SAMPLES ON APPLICATION.

CHOLERA ! ! ! ! !

ESSENCE AND PILULES OF

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PER **3/6** DOZ.

ONE SHILLING SIZE.

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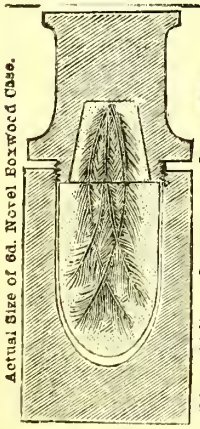
Order Immediately from **WATSON & WATES,** 93 Leadenhall Street, LONDON, E.C.



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VINT'S

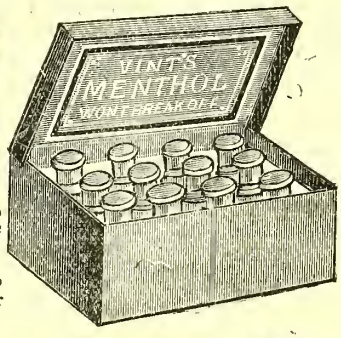
PATENT UNBREAKABLE MENTHOL

Is firmly secured to the holder by the insertion of Feather Tips, which Penetrate the Cone, are Soft, Tough, and Spreading, so that it

WON'T BREAK OFF.

The Chemist and Druggist says: "Mr. VINT, CHEMIST, HASTINGS, is the originator of an ingenious idea for securing Menthol Cones so that they may be used to the last without fear of breakage."

3/6 & 6/6 doz., of Barclay, Maw, Sanger, Sutton, Edwards, Newbery, May Roberts, Chemists' Association, and all Sundry Dealers; or 1 dozen of either size sent free on receipt of P.O. 3/6 or 6/6.



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WE DON'T

STOCK

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WE DO GALENICALS ABOUT

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BELOW THE USUAL PRICES.

SPECIALITIES:

MALT EXTRACT

and its Preparations.

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"IZAL" IS THE

NEW NON-POISONOUS DISINFECTANT,

"IZAL"

And is now supplied by the chief Wholesale Houses.

Show Cards, Pamphlets, Printed Matter,
And any information the Trade may require, can be obtained on application to

Allen & Hanburys,
BETHNAL GREEN,
LONDON,
Who are the Sole Bottling Agents for the Manufacturers.

MY PATENTED CHEMICAL PREPARATION

"TERPENTINA"

(Registered 17,711)

Is acknowledged by the highest military authorities of England and Germany to be the only reliable medium for removing all spots of

Oil, Grease, Tar, Varnish, Colour, Ink, Perspiration, Beer, Wine, and any other Stains.

ALL CHEMISTS AND DRUGGISTS SHOULD KEEP

"TERPENTINA"

In stock, as no other preparation can show such marvellous success as

"TERPENTINA"

Retail Prices, 3d., 6d., 1/- and 1/6 per Bottle.

To be had of all Wholesale Houses and Sundriesmen, or direct from the Sole Manufacturer and Proprietor,

HERMANN HULLERSON,
203 Shaftesbury Avenue, LONDON, W.C.
Agents required in all towns of Great Britain and Ireland.

RANDALL'S

BLACK CURRANT LOZENGES

Plain Black Currant, old square	2/6	Black Currant Voice (warm astringent)	3/
Plain Black Currant, rough oval	2/6	Black Currant Cough Lozenges*	3/6
Black Currant and Ipecacuanha	2/6	*Ipecac. & Morph., streng has "B.P."	
Black Currant and Tannin ..	3/		

In Bottles, 1-lb., 2-lb., 4-lb., and 7-lb. For exportation, in soldered Tins, of any size. From W. EDWARDS & SON and J. SANGER & SONS, London; through any Wholesale House; and from the Manufacturers,

RANDALL & SON, SOUTHAMPTON,
Who will forward Samples by post on application.

Also **Brown Cough Lozenges, 2/-**; 7 lbs. stamped with name free.

N.B.—Medical Lozenges of every kind, including those of the Pharmacopœia of the Hospital for Diseases of the Throat, London, *made with Black or Red Currant.*

A REVOLUTION IN TRADE.

TOBACCO AND CIGARS, "MIXED PARCELS."
Every Requisite for the Smoker in One Order.
MINIMUM OF TROUBLE. MAXIMUM OF PROFITS.

Every known Manufacturer's Packet Tobaccos and Cigarettes at their List Prices. Foreign Cigars and Tobacconists' Fancy Goods at Importers' Prices. Carriage paid on parcels of £2 upwards to any station in the United Kingdom.

SINGLETON & COLE, Limited,
TOBACCONISTS' FACTORS,
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All Dealers in Tobacco, Cigars, Cigarettes, or Tobacconists' Fancy Goods should send P. C. for a copy of our Illustrated Price List. It is simply invaluable as a reference and guide to the Trade, and new beginners gather much useful information from it, thereby gaining experience and saving time and money.

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"THE ART OF DISPENSING." Price 3*s.* 6*d.* By post, 3*s.* 10*d.*

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SEABURY'S

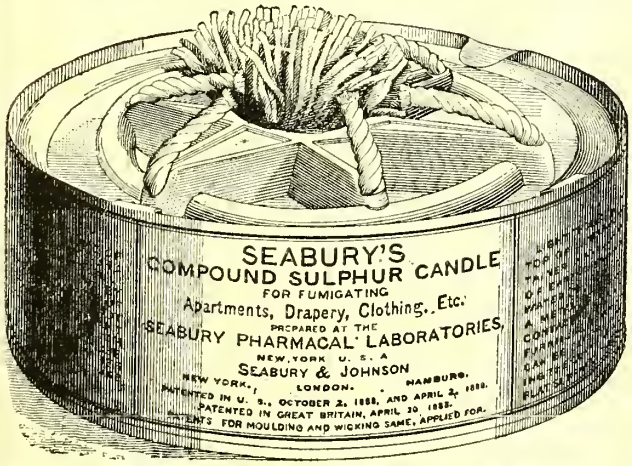
SULPHUR CANDLES

(Patented 6407).

DISINFECTION BY FUMIGATION.

Will destroy Disease Germs after Infectious Diseases in Vacated Apartments or Hospital Wards, also Bedding, Clothing, and Drapery.

Influenza, Scarlet Fever, Smallpox, Typhoid Fever, etc.



These Candles afford the only safe means of burning sulphur indoors—one Candle will burn two hours, and thoroughly disinfect a room of ordinary size.

Will destroy noxious vapours from sewers cesspools, &c.

Used and approved by Boards of Health in all parts of Great Britain and America.

These Candles were used to fumigate the Royal Courts of Justice, the War Office, and the Committee Rooms of the House of Commons during the Influenza Epidemic.

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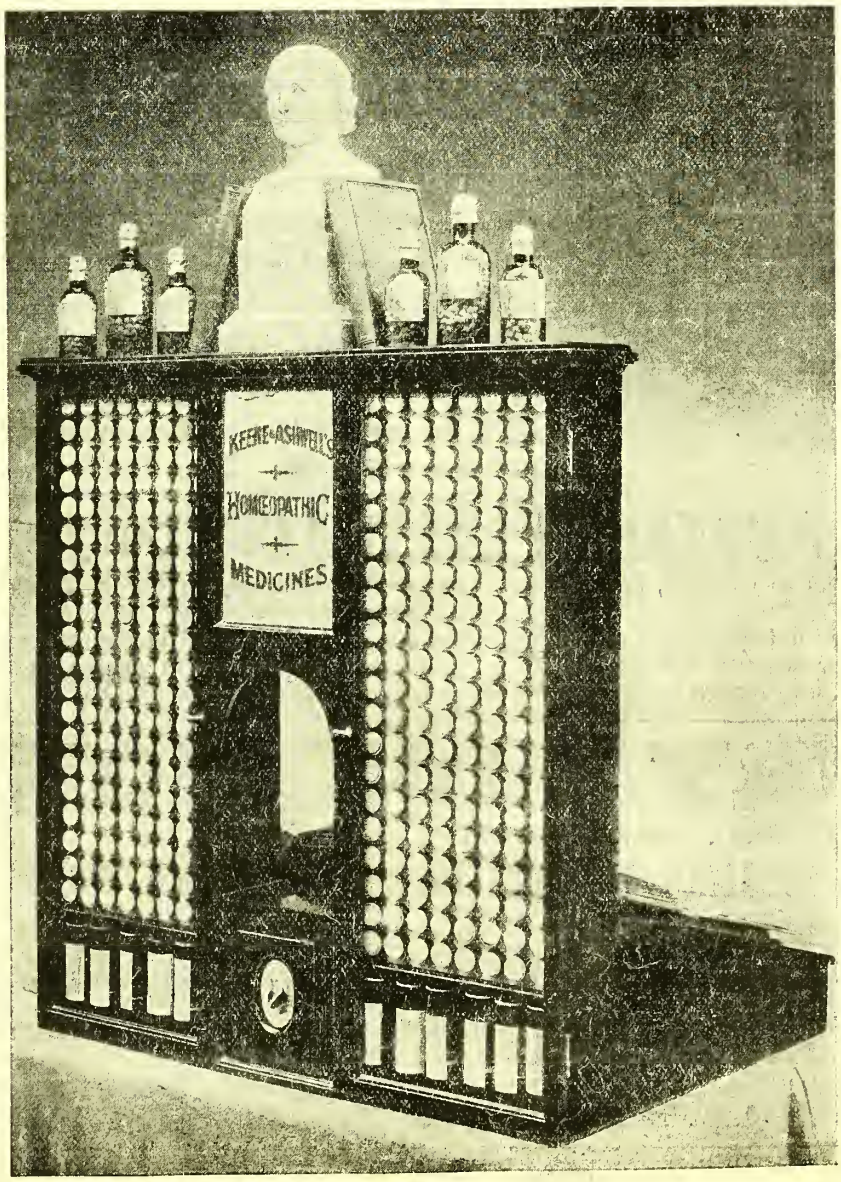

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